GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: September 22, 2004, 08:57:07 ; Search time 0.001 Seconds
(without alignments)
1856.070 Million cell updates/sec

Title: US-09-375-514B-22
Perfect score: 615
Sequence: 1 atggcgcacgctgggagaac.....ctggtgatgtgagtctgggc 615

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

Searched: 83 seqs, 1509 residues

Total number of hits satisfying chosen parameters: 166

Minimum DB seq length: 10
Maximum DB seq length: 40

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 85 summaries

Database : rni22.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	36	5.9	36	1	US-07-936-421-15	Sequence 15, Appl
	2	33	5.4	33	1	US-07-936-421-5	Sequence 5, Appli
	3	28	4.6	28	1	US-07-936-421-8	Sequence 8, Appli
	4	23	3.7	23	1	US-07-936-421-4	Sequence 4, Appli
c	5	22.4	3.6	24	1	US-08-480-994-11	Sequence 11, Appl
c	6	22.4	3.6	24	1	US-08-616-844-11	Sequence 11, Appl
c	7	22.4	3.6	24	1	US-08-599-654-11	Sequence 11, Appl
c	8	22.4	3.6	24	1	US-08-485-573-11	Sequence 11, Appl
c	9	22.4	3.6	24	1	US-08-944-868A-11	Sequence 11, Appl
c	10	22.4	3.6	24	1	US-08-944-423A-11	Sequence 11, Appl
c	11	22.4	3.6	24	1	US-08-925-743-11	Sequence 11, Appl
c	12	22.4	3.6	24	1	US-08-944-496-11	Sequence 11, Appl
c	13	22.4	3.6	24	1	US-08-925-767-11	Sequence 11, Appl
	14	22	3.6	22	1	US-07-936-421-6	Sequence 6, Appli
	15	22	3.6	22	1	US-09-136-080E-51	Sequence 51, Appl
c	16	20	3.3	20	1	US-08-217-082A-3	Sequence 3, Appli
	17	20	3.3	20	1	US-08-405-702A-13	Sequence 13, Appl
c	18	20	3.3	20	1	US-08-465-485A-3	Sequence 3, Appli
c	19	20	3.3	20	1	US-09-080-285-3	Sequence 3, Appli
	20	20	3.3	20	1	US-09-445-486-1	Sequence 1, Appli
c	21	20	3.3	20	1	US-09-445-486-3	Sequence 3, Appli
c	22	20	3.3	20	1	US-09-724-426-3	Sequence 3, Appli
	23	20	3.3	20	1	US-09-301-836-1	Sequence 1, Appli
	24	19	3.1	19	1	US-07-936-421-11	Sequence 11, Appl
	25	19	3.1	19	1	US-07-936-421-12	Sequence 12, Appl
	26	19	3.1	19	1	US-07-936-421-14	Sequence 14, Appl
c	27	18.4	3.0	20	1	US-09-109-663-72	Sequence 72, Appl
c	28	18	2.9	18	1	US-08-217-082A-17	Sequence 17, Appl
c	29	18	2.9	18	1	US-08-465-485A-17	Sequence 17, Appl
c	30	18	2.9	18	1	US-08-465-485A-24	Sequence 24, Appl
c	31	18	2.9	18	1	US-09-080-285-17	Sequence 17, Appl
c	32	18	2.9	18	1	US-09-080-285-24	Sequence 24, Appl
c	33	18	2.9	18	1	US-09-249-730-218	Sequence 218, App
c	34	18	2.9	18	1	US-09-118-220-1	Sequence 1, Appli
c	35	18	2.9	18	1	US-08-738-652-55	Sequence 55, Appl
c	36	18	2.9	18	1	US-09-030-701-27	Sequence 27, Appl
c	37	18	2.9	18	1	US-09-286-098-59	Sequence 59, Appl
c	38	18	2.9	18	1	US-09-286-098-104	Sequence 104, App
c	39	18	2.9	18	1	US-08-960-774-45	Sequence 45, Appl
c	40	18	2.9	18	1	US-09-078-954-14	Sequence 14, Appl
c	41	18	2.9	18	1	US-09-325-193A-51	Sequence 51, Appl
c	42	18	2.9	18	1	US-09-724-426-17	Sequence 17, Appl
c	43	18	2.9	18	1	US-09-724-426-24	Sequence 24, Appl
c	44	18	2.9	18	1	US-09-191-170-53	Sequence 53, Appl
c	45	18	2.9	18	1	US-09-136-080E-45	Sequence 45, Appl
c	46	18	2.9	18	1	US-09-690-921-2	Sequence 2, Appli
c	47	18	2.9	18	1	US-09-301-829A-2	Sequence 2, Appli
c	48	18	2.9	18	1	US-09-249-247-218	Sequence 218, App
c	49	18	2.9	18	1	US-09-337-619-45	Sequence 45, Appl
c	50	18	2.9	20	1	US-09-082-649B-60	Sequence 60, Appl
c	51	17	2.8	17	1	US-08-217-082A-8	Sequence 8, Appli
c	52	17	2.8	17	1	US-08-217-082A-9	Sequence 9, Appli
	53	17	2.8	17	1	US-07-936-421-10	Sequence 10, Appl
c	54	17	2.8	17	1	US-08-877-831-1	Sequence 1, Appli
c	55	16.4	2.7	18	1	US-09-030-701-41	Sequence 41, Appl
c	56	16.4	2.7	18	1	US-09-030-701-60	Sequence 60, Appl
c	57	16.4	2.7	18	1	US-09-286-098-72	Sequence 72, Appl
c	58	16.4	2.7	18	1	US-08-960-774-72	Sequence 72, Appl
c	59	16.4	2.7	18	1	US-09-191-170-66	Sequence 66, Appl
c	60	16.4	2.7	18	1	US-09-337-619-72	Sequence 72, Appl
	61	16	2.6	16	1	US-07-936-421-7	Sequence 7, Appli
c	62	15.4	2.5	17	1	US-08-584-040-7436	Sequence 7436, Ap
c	63	15.4	2.5	17	1	US-09-371-772B-3243	Sequence 3243, Ap
c	64	13.6	2.2	36	1	US-07-936-421-15	Sequence 15, Appl
	65	13	2.1	13	1	US-07-936-421-9	Sequence 9, Appli
	66	13	2.1	13	1	US-09-216-584-5	Sequence 5, Appli
	67	13	2.1	13	1	US-09-216-584-6	Sequence 6, Appli
	68	13	2.1	13	1	US-09-216-584-8	Sequence 8, Appli
	69	13	2.1	13	1	US-09-216-584-9	Sequence 9, Appli
	70	13	2.1	13	1	US-09-216-584-10	Sequence 10, Appl
	71	13	2.1	13	1	US-09-216-584-11	Sequence 11, Appl
	72	13	2.1	13	1	US-09-216-584-12	Sequence 12, Appl
	73	13	2.1	13	1	US-09-216-584-13	Sequence 13, Appl
	74	13	2.1	14	1	US-09-855-159A-13	Sequence 13, Appl
	75	12	2.0	12	1	US-07-936-421-3	Sequence 3, Appli
c	76	12	2.0	12	1	US-08-778-702-10	Sequence 10, Appl
c	77	12	2.0	12	1	US-09-475-947A-126	Sequence 126, App
	78	11	1.8	11	1	US-07-936-421-13	Sequence 13, Appl
	79	11	1.8	12	1	US-09-475-947A-126	Sequence 126, App
c	80	11	1.8	12	1	US-09-030-701-38	Sequence 38, Appl
c	81	11	1.8	12	1	US-09-286-098-69	Sequence 69, Appl
c	82	11	1.8	12	1	US-08-960-774-69	Sequence 69, Appl
c	83	11	1.8	12	1	US-09-325-193A-59	Sequence 59, Appl
c	84	11	1.8	12	1	US-09-191-170-63	Sequence 63, Appl
c	85	11	1.8	12	1	US-09-337-619-69	Sequence 69, Appl

ALIGNMENTS

RESULT 1
US-07-936-421-15
; Sequence 15, Application US/07936421
; Patent No. 5750390
; GENERAL INFORMATION:
; APPLICANT: James D. Thompson
; APPLICANT: Kenneth G. Draper
; TITLE OF INVENTION: METHOD AND REAGENT FOR
; TITLE OF INVENTION: TREATMENT OF DISEASES CAUSED
; TITLE OF INVENTION: BY EXPRESSION OF THE BCL-2
; TITLE OF INVENTION: GENE
; NUMBER OF SEQUENCES: 22
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Lyon & Lyon
; STREET: 611 West Sixth Street
; CITY: Los Angeles

```
;       STATE:  California
;       COUNTRY:  USA
;       ZIP:  90017
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;       COMPUTER:  IBM Compatible
;       OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;       SOFTWARE:  WordPerfect (Version 5.1)
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/07/936,421
;       FILING DATE:  19920826
;       CLASSIFICATION:  435
;     PRIOR APPLICATION DATA:
;     PRIOR APPLICATION DATA:  including application
;     PRIOR APPLICATION DATA:  described below:                  none
;       APPLICATION NUMBER:
;       FILING DATE:
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Warburg, Richard J.
;       REGISTRATION NUMBER:  32,327
;       REFERENCE/DOCKET NUMBER:  197/243
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (213) 489-1600
;       TELEFAX:  (213) 955-0440
;       TELEX:  67-3510
;   INFORMATION FOR SEQ ID NO:  15:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  36
;       TYPE:  NUCLEIC ACID
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
US-07-936-421-15

  Query Match             5.9%;  Score 36;  DB 1;  Length 36;
  Best Local Similarity   86.1%;  Pred. No. 0.79;
  Matches   31;  Conservative    5;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        539 ACCTGAACCGGCACCTGCACACCTGGATCCAGGATA 574
              |||:||||||||||||:|||||||:|||:||||||:|
Db          1 ACCUGAACCGGCACCUGCACACCUGGAUCCAGGAUA 36


RESULT 2
US-07-936-421-5
; Sequence 5, Application US/07936421
; Patent No. 5750390
;  GENERAL INFORMATION:
;    APPLICANT:  James D. Thompson
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  TREATMENT OF DISEASES CAUSED
;    TITLE OF INVENTION:  BY EXPRESSION OF THE BCL-2
;    TITLE OF INVENTION:  GENE
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  611 West Sixth Street
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90017
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/936,421
;      FILING DATE:  19920826
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
;    PRIOR APPLICATION DATA:  described below:                  none
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  197/243
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  5:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  33
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-07-936-421-5

  Query Match             5.4%;  Score 33;  DB 1;  Length 33;
  Best Local Similarity   84.8%;  Pred. No. 1.4;
  Matches   28;  Conservative    5;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        134 CACCGGGCATCTTCTCCTCCCAGCCCGGGCACA 166
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Db          1 CACCGGGCAUCUUCUCCUCCCAGCCCGGGCACA 33


RESULT 3
US-07-936-421-8
; Sequence 8, Application US/07936421
; Patent No. 5750390
;  GENERAL INFORMATION:
;    APPLICANT:  James D. Thompson
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  TREATMENT OF DISEASES CAUSED
;    TITLE OF INVENTION:  BY EXPRESSION OF THE BCL-2
;    TITLE OF INVENTION:  GENE
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  611 West Sixth Street
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90017
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/936,421
;      FILING DATE:  19920826
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
;    PRIOR APPLICATION DATA:  described below:                  none
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  197/243
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  28
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  single
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;      TOPOLOGY:  linear
US-07-936-421-8

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  Best Local Similarity   82.1%;  Pred. No. 3.9;
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Qy        271 CCTGTGGTCCACCTGGCCCTCCGCCAAG 298
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Db          1 CCUGUGGUCCACCUGGCCCUCCGCCAAG 28


RESULT 4
US-07-936-421-4
; Sequence 4, Application US/07936421
; Patent No. 5750390
;  GENERAL INFORMATION:
;    APPLICANT:  James D. Thompson
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  TREATMENT OF DISEASES CAUSED
;    TITLE OF INVENTION:  BY EXPRESSION OF THE BCL-2
;    TITLE OF INVENTION:  GENE
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  611 West Sixth Street
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90017
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/936,421
;      FILING DATE:  19920826
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
;    PRIOR APPLICATION DATA:  described below:                  none
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  197/243
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  23
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-07-936-421-4

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  Matches   20;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         64 AAGCTGTCGCAGAGGGGCTACGA 86
              ||||:|:||||||||||:||||
Db          1 AAGCUGUCGCAGAGGGGCUACGA 23


RESULT 5
US-08-480-994-11/c
; Sequence 11, Application US/08480994
; Patent No. 5834248
;  GENERAL INFORMATION:
;    APPLICANT:  FALB, DEAN A.
;    TITLE OF INVENTION:  COMPOSITIONS AND METHODS FOR THE
;    TITLE OF INVENTION:  TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;    NUMBER OF SEQUENCES:  38
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  PENNIE & EDMONDS
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10036-2711
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/480,994
;      FILING DATE:  07-JUN-1995
;      CLASSIFICATION:  800
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/485,573
;      FILING DATE:  07-JUN-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/386,844
;      FILING DATE:  10-FEB-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Coruzzi, Laura A.
;      REGISTRATION NUMBER:  30,742
;      REFERENCE/DOCKET NUMBER:  7853-033
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  11:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  24 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (genomic)
;    HYPOTHETICAL:  NO
US-08-480-994-11

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 12;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

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Db          24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 6
US-08-616-844-11/c
; Sequence 11, Application US/08616844
; Patent No. 5849578
;  GENERAL INFORMATION:
;    APPLICANT:  FALB, DEAN A.
;    TITLE OF INVENTION:  COMPOSITION AND METHODS FOR THE
;    TITLE OF INVENTION:  TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;    NUMBER OF SEQUENCES:  54
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  PENNIE & EDMONDS
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10036-2711
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
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;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/616,844
;       FILING DATE:  15-MAR-1996
;       CLASSIFICATION:  800
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 08/599,654
;       FILING DATE:  09-FEB-1996
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 08/485,573
;       FILING DATE:  07-JUN-1995
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 08/386,844
;       FILING DATE:  10-FEB-1995
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  CORUZZI, LAURA A.
;       REGISTRATION NUMBER:  30,742
;       REFERENCE/DOCKET NUMBER:  7853-053
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (212) 790-9090
;       TELEFAX:  (212) 869-8864
;       TELEX:  66141 PENNIE
;   INFORMATION FOR SEQ ID NO:  11:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  24 base pairs
;       TYPE:  nucleic acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  other nucleic acid
;       DESCRIPTION:  /desc = "synthetic oligonucleotide"
;     HYPOTHETICAL:  NO
US-08-616-844-11

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 12;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
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Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 7
US-08-599-654-11/c
; Sequence 11, Application US/08599654
; Patent No. 5882925
;  GENERAL INFORMATION:
;    APPLICANT:  FALB, DEAN A
;    TITLE OF INVENTION:  COMPOSITIONS AND METHODS FOR THE
;    TITLE OF INVENTION:  TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;    NUMBER OF SEQUENCES:  54
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  PENNIE & EDMONDS
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10036-2711
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/599,654
;      FILING DATE:  09-FEB-1996
;      CLASSIFICATION:  800
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/485,573
;      FILING DATE:  07-JUN-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/386,844
;      FILING DATE:  10-FEB-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  CORUZZI, LAURA A
;      REGISTRATION NUMBER:  30,742
;      REFERENCE/DOCKET NUMBER:  7853-041
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  11:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  24 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  other nucleic acid
;      DESCRIPTION:  /desc = "synthetic oligonucleotide"
;    HYPOTHETICAL:  NO
US-08-599-654-11

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 12;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 8
US-08-485-573-11/c
; Sequence 11, Application US/08485573
; Patent No. 5968770
;  GENERAL INFORMATION:
;    APPLICANT:  FALB, DEAN A.
;    TITLE OF INVENTION:  COMPOSITIONS AND METHODS FOR THE
;    TITLE OF INVENTION:  TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;    NUMBER OF SEQUENCES:  38
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  PENNIE & EDMONDS
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10036-2711
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/485,573
;      FILING DATE:  07-JUN-1995
;      CLASSIFICATION:  800
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/386,844
;      FILING DATE:  10-FEB-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Coruzzi, Laura A.
;      REGISTRATION NUMBER:  30,742
;      REFERENCE/DOCKET NUMBER:  7853-032
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  11:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  24 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (genomic)
```

```
;    HYPOTHETICAL:  NO
US-08-485-573-11

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 12;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 9
US-08-944-868A-11/c
; Sequence 11, Application US/08944868A
; Patent No. 6018025
;  GENERAL INFORMATION:
;    APPLICANT:  FALB, DEAN A
;    TITLE OF INVENTION:  COMPOSITIONS AND METHODS FOR THE
;    TITLE OF INVENTION:  TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;    NUMBER OF SEQUENCES:  54
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  PENNIE & EDMONDS
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10036-2711
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/944,868A
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/599,654
;      FILING DATE:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/386,844
;      FILING DATE:  10-FEB-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  CORUZZI, LAURA A
;      REGISTRATION NUMBER:  30,742
;      REFERENCE/DOCKET NUMBER:  7853-041
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  11:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  24 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  other nucleic acid
;      DESCRIPTION:  /desc = "synthetic oligonucleotide"
;    HYPOTHETICAL:  NO
US-08-944-868A-11

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 12;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 10
US-08-944-423A-11/c
; Sequence 11, Application US/08944423A
; Patent No. 6020463
;  GENERAL INFORMATION:
;    APPLICANT:  FALB, DEAN A
;    TITLE OF INVENTION:  COMPOSITIONS AND METHODS FOR THE
;    TITLE OF INVENTION:  TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;    NUMBER OF SEQUENCES:  54
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  PENNIE & EDMONDS
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10036-2711
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  WINDOWS 95
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/944,423A
;      FILING DATE:  06-OCT-1997
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/599,654
;      FILING DATE:  09-FEB-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/485,573
;      FILING DATE:  JUN-07-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/386,844
;      FILING DATE:  10-FEB-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  CORUZZI, LAURA A
;      REGISTRATION NUMBER:  30,742
;      REFERENCE/DOCKET NUMBER:  7853-105
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  11:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  24 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  other nucleic acid
;      DESCRIPTION:  /desc = "synthetic oligonucleotide"
;    HYPOTHETICAL:  NO
US-08-944-423A-11

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 12;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 11
US-08-925-743-11/c
; Sequence 11, Application US/08925743
; Patent No. 6054558
;  GENERAL INFORMATION:
;    APPLICANT:  FALB, DEAN A.
;    TITLE OF INVENTION:  COMPOSITIONS AND METHODS FOR THE
;    TITLE OF INVENTION:  TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;    NUMBER OF SEQUENCES:  38
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  PENNIE & EDMONDS
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
```

```
;       STATE:  New York
;       COUNTRY:  USA
;       ZIP:  10036-2711
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.30
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/925,743
;       FILING DATE:
;       CLASSIFICATION:
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  08/485,573
;       FILING DATE:
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Coruzzi, Laura A.
;       REGISTRATION NUMBER:  30,742
;       REFERENCE/DOCKET NUMBER:  7853-032
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (212) 790-9090
;       TELEFAX:  (212) 869-8864
;       TELEX:  66141 PENNIE
;   INFORMATION FOR SEQ ID NO:  11:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  24 base pairs
;       TYPE:  nucleic acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  DNA (genomic)
;     HYPOTHETICAL:  NO
US-08-925-743-11

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 12;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 12
US-08-944-496-11/c
; Sequence 11, Application US/08944496
; Patent No. 6124433
;  GENERAL INFORMATION:
;    APPLICANT:  FALB, DEAN A
;    TITLE OF INVENTION:  COMPOSITIONS AND METHODS FOR THE
;    TITLE OF INVENTION:  TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;    NUMBER OF SEQUENCES:  54
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  PENNIE & EDMONDS LLP
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10036-2711
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/944,496
;      FILING DATE:  06-OCT-1997
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/599,654
;      FILING DATE:  09-FEB-1996
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/485,573
;      FILING DATE:  07-JUN-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/386,844
;      FILING DATE:  10-FEB-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  CORUZZI, LAURA A
;      REGISTRATION NUMBER:  30,742
;      REFERENCE/DOCKET NUMBER:  7853-104
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  11:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  24 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  other nucleic acid
;      DESCRIPTION:  /desc = "synthetic oligonucleotide"
;    HYPOTHETICAL:  NO
US-08-944-496-11

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 12;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 13
US-08-925-767-11/c
; Sequence 11, Application US/08925767
; Patent No. 6225084
;  GENERAL INFORMATION:
;    APPLICANT:  FALB, DEAN A.
;    TITLE OF INVENTION:  COMPOSITIONS AND METHODS FOR THE
;    TITLE OF INVENTION:  TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;    NUMBER OF SEQUENCES:  38
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  PENNIE & EDMONDS
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  USA
;      ZIP:  10036-2711
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/925,767
;      FILING DATE:  09-SEPT-1997
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/485,573
;      FILING DATE:  07-JUN-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/386,844
;      FILING DATE:  10-FEB-1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Coruzzi, Laura A.
;      REGISTRATION NUMBER:  30,742
;      REFERENCE/DOCKET NUMBER:  7853-097
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  11:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  24 base pairs
```

```
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (genomic)
;    HYPOTHETICAL:  NO
US-08-925-767-11

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 12;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 14
US-07-936-421-6
; Sequence 6, Application US/07936421
; Patent No. 5750390
;  GENERAL INFORMATION:
;    APPLICANT:  James D. Thompson
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  TREATMENT OF DISEASES CAUSED
;    TITLE OF INVENTION:  BY EXPRESSION OF THE BCL-2
;    TITLE OF INVENTION:  GENE
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  611 West Sixth Street
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90017
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/936,421
;      FILING DATE:  19920826
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
;    PRIOR APPLICATION DATA:  described below:                    none
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  197/243
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  6:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  22
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-07-936-421-6

  Query Match             3.6%;  Score 22;  DB 1;  Length 22;
  Best Local Similarity   90.9%;  Pred. No. 12;
  Matches   20;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 CGCCAGGACCTCGCCGCTGCAG 219
              ||||||||||:||||||:||||
Db          1 CGCCAGGACCUCGCCGCUGCAG 22


RESULT 15
US-09-136-080E-51
; Sequence 51, Application US/09136080E
; Patent No. 6518017
; GENERAL INFORMATION:
;  APPLICANT: Riley, Timothy A.
;  APPLICANT:  Brown, Bob D.
;  APPLICANT:  Arnold, Lyle J.
;  TITLE OF INVENTION: COMBINATORIAL ANTISENSE LIBRARY
;  FILE REFERENCE: OASBIO.003A
;  CURRENT APPLICATION NUMBER: US/09/136,080E
;  CURRENT FILING DATE:  1998-08-18
;  NUMBER OF SEQ ID NOS: 54
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 51
;   LENGTH: 22
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligonucleotide
US-09-136-080E-51

  Query Match             3.6%;  Score 22;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 12;
  Matches   22;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        264 GGTGCCACCTGTGGTCCACCTG 285
              ||||||||||||||||||||||
Db          1 GGTGCCACCTGTGGTCCACCTG 22


RESULT 16
US-08-217-082A-3/c
; Sequence 3, Application US/08217082A
; Patent No. 5734033
;  GENERAL INFORMATION:
;    APPLICANT:  Reed, John
;    TITLE OF INVENTION:  ANTISENSE OLIGONUCLEOTIDES FOR INHIBITING THE
;    TITLE OF INVENTION:  GROWTH OF CELLS EXPRESSING THE HUMAN BCL-2 GENE
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
;      ADDRESSEE:  P.C.
;      STREET:  224 Airport Parkway
;      CITY:  San Jose
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  95110
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/217,082A
;      FILING DATE:  24-MAR-1994
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/840,716
;      FILING DATE:  21-FEB-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/288,692
;      FILING DATE:  22-DEC-1988
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fortney, Andrew D.
;      REGISTRATION NUMBER:  34,600
;      REFERENCE/DOCKET NUMBER:  3335-067-55 FWC
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (408) 436-2070
;      TELEFAX:  (408) 436-2075
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
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```
;      LENGTH:  20 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  other nucleic acid
;      DESCRIPTION:  Synthetic DNA
;    ANTI-SENSE:  YES
US-08-217-082A-3

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        577 GGAGGCTGGGTAGGTGCATC 596
              ||||||||||||||||||||
Db         20 GGAGGCTGGGTAGGTGCATC 1


RESULT 17
US-08-405-702A-13
; Sequence 13, Application US/08405702A
; Patent No. 5789389
;  GENERAL INFORMATION:
;    APPLICANT:  Tarasewicz, Dariusz G
;    APPLICANT:  Schott, Brigitte
;    APPLICANT:  Holzmayer, Tatiana A.
;    APPLICANT:  Roninson, Igor B
;    TITLE OF INVENTION:  BCL2 Derived Genetic Elements Associated
;    TITLE OF INVENTION:  with Sensitivity to Chemotherapeutic Drugs
;    NUMBER OF SEQUENCES:  16
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Banner & Witcoff, Ltd.
;      STREET:  10 South Wacker Drive, Suite 3000
;      CITY:  Chicago
;      STATE:  Illinois
;      COUNTRY:  USA
;      ZIP:  60606
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/405,702A
;      FILING DATE:  17-MAR-1995
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  No. 5789389nan, Kevin E
;      REGISTRATION NUMBER:  35,303
;      REFERENCE/DOCKET NUMBER:  95,332
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  312-715-1000
;      TELEFAX:  312-715-1234
;      TELEX:  910-221-5317
;  INFORMATION FOR SEQ ID NO:  13:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  20 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
US-08-405-702A-13

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        442 GTGGCCTTCTTTGAGTTCGG 461
              ||||||||||||||||||||
Db          1 GTGGCCTTCTTTGAGTTCGG 20


RESULT 18
US-08-465-485A-3/c
; Sequence 3, Application US/08465485A
; Patent No. 5831066
;  GENERAL INFORMATION:
;    APPLICANT:  Reed, John
;    TITLE OF INVENTION:  Regulation of bcl-2 Gene Expression
;    NUMBER OF SEQUENCES:  29
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
;      ADDRESSEE:  P.C.
;      STREET:  1755 S. Jefferson Davis Hwy., Suite 400
;      CITY:  Arlington
;      STATE:  Virginia
;      COUNTRY:  U.S.A.
;      ZIP:  22202
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/465,485A
;      FILING DATE:  05-JUN-1995
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/124,256
;      FILING DATE:  20-SEP-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/840,716
;      FILING DATE:  21-FEB-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/288,692
;      FILING DATE:  22-DEC-1988
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fortney, Andrew D.
;      REGISTRATION NUMBER:  34,600
;      REFERENCE/DOCKET NUMBER:  3335-070-55 CONT
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (408) 436-2070
;      TELEFAX:  (408) 436-2075
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  20 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA (genomic)
;    ANTI-SENSE:  YES
US-08-465-485A-3

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        577 GGAGGCTGGGTAGGTGCATC 596
              ||||||||||||||||||||
Db         20 GGAGGCTGGGTAGGTGCATC 1


RESULT 19
US-09-080-285-3/c
; Sequence 3, Application US/09080285
; Patent No. 6040181
;  GENERAL INFORMATION:
;    APPLICANT:  Reed, John
;    TITLE OF INVENTION:  Regulation of bcl-2 Gene Expression
;    NUMBER OF SEQUENCES:  29
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
;      ADDRESSEE:  P.C.
;      STREET:  1755 S. Jefferson Davis Hwy., Suite 400
;      CITY:  Arlington
;      STATE:  Virginia
```

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;       COUNTRY:  U.S.A.
;       ZIP:  22202
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.25
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/09/080,285
;       FILING DATE:
;       CLASSIFICATION:
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 08/465,485
;       FILING DATE:  05-JUN-1995
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 08/124,256
;       FILING DATE:  20-SEP-1993
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 07/840,716
;       FILING DATE:  21-FEB-1992
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 07/288,692
;       FILING DATE:  22-DEC-1988
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Fortney, Andrew D.
;       REGISTRATION NUMBER:  34,600
;       REFERENCE/DOCKET NUMBER:  3335-070-55 CONT
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (408) 436-2070
;       TELEFAX:  (408) 436-2075
;   INFORMATION FOR SEQ ID NO:  3:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  20 base pairs
;       TYPE:  nucleic acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  DNA (genomic)
;     ANTI-SENSE:  YES
US-09-080-285-3

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        577 GGAGGCTGGGTAGGTGCATC 596
              ||||||||||||||||||||
Db         20 GGAGGCTGGGTAGGTGCATC 1


RESULT 20
US-09-445-486-1
; Sequence 1, Application US/09445486
; Patent No. 6291668
; GENERAL INFORMATION:
;  APPLICANT:  Ziegler, Annemarie
;  APPLICANT:  Zangemeister-Wittke, Uwe
;  APPLICANT:  Fabbro, Doriano
;  APPLICANT:  Altmann, Karl-Heinz
;  TITLE OF INVENTION:  Oligonucleotide derivatives
;  FILE REFERENCE:  4-30026/A
;  CURRENT APPLICATION NUMBER: US/09/445,486
;  CURRENT FILING DATE:  1999-12-07
;  PRIOR APPLICATION NUMBER:  PCT/EP98/03362
;  PRIOR FILING DATE:  1998-06-05
;  NUMBER OF SEQ ID NOS:  7
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 1
;   LENGTH: 20
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:Isolated
;   OTHER INFORMATION: polynucleotide
;   OTHER INFORMATION: corresponding to nucleotide nos 1890 to 1899 of
;   OTHER INFORMATION: GenBank database accession number M13994
;   OTHER INFORMATION: GENBANK:HUMBCL2A
US-09-445-486-1

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        422 GGGTGAACTGGGGGAGGATT 441
              ||||||||||||||||||||
Db          1 GGGTGAACTGGGGGAGGATT 20


RESULT 21
US-09-445-486-3/c
; Sequence 3, Application US/09445486
; Patent No. 6291668
; GENERAL INFORMATION:
;  APPLICANT:  Ziegler, Annemarie
;  APPLICANT:  Zangemeister-Wittke, Uwe
;  APPLICANT:  Fabbro, Doriano
;  APPLICANT:  Altmann, Karl-Heinz
;  TITLE OF INVENTION:  Oligonucleotide derivatives
;  FILE REFERENCE:  4-30026/A
;  CURRENT APPLICATION NUMBER: US/09/445,486
;  CURRENT FILING DATE:  1999-12-07
;  PRIOR APPLICATION NUMBER:  PCT/EP98/03362
;  PRIOR FILING DATE:  1998-06-05
;  NUMBER OF SEQ ID NOS:  7
;  SOFTWARE:  PatentIn Ver. 2.0
; SEQ ID NO 3
;   LENGTH: 20
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Derivative of SEQ ID NO:1
US-09-445-486-3

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        422 GGGTGAACTGGGGGAGGATT 441
              ||||||||||||||||||||
Db         20 GGGTGAACTGGGGGAGGATT 1


RESULT 22
US-09-724-426-3/c
; Sequence 3, Application US/09724426
; Patent No. 6414134
; GENERAL INFORMATION:
;  APPLICANT: Reed, John
;  TITLE OF INVENTION: Regulation of BCL-2 Gene Expression
;  FILE REFERENCE: 10412-024
;  CURRENT APPLICATION NUMBER: US/09/724,426
;  CURRENT FILING DATE:  2000-11-28
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
;   LENGTH: 20
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-724-426-3

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        577 GGAGGCTGGGTAGGTGCATC 596
              ||||||||||||||||||||
Db         20 GGAGGCTGGGTAGGTGCATC 1
```

```
RESULT 23
US-09-301-836-1
; Sequence 1, Application US/09301836
; Patent No. 6436393
; GENERAL INFORMATION:
;  APPLICANT: Bilbao, Guadalupe
;  APPLICANT: Curiel, David
;  APPLICANT: Contreras, Juan L.
;  TITLE OF INVENTION: Adenoviral Vector Encoding Anti-Apoptotic Bcl-2
;  TITLE OF INVENTION: Gene and Uses Thereof
;  FILE REFERENCE: D6078
;  CURRENT APPLICATION NUMBER: US/09/301,836
;  CURRENT FILING DATE: 1999-04-29
;  EARLIER APPLICATION NUMBER: 60/083,434
;  EARLIER FILING DATE: 1998-04-29
;  NUMBER OF SEQ ID NOS: 2
; SEQ ID NO 1
;   LENGTH: 20
;   TYPE: DNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: primer_bind
;   OTHER INFORMATION: primer for PCR amplification to generate human
;   OTHER INFORMATION: Bcl-2-specific fragment (~590 bp)
US-09-301-836-1

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 17;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          86 AGTGGGATGCGGGAGATGTG 105
               ||||||||||||||||||||
Db           1 AGTGGGATGCGGGAGATGTG 20


RESULT 24
US-07-936-421-11
; Sequence 11, Application US/07936421
; Patent No. 5750390
;  GENERAL INFORMATION:
;    APPLICANT:  James D. Thompson
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  TREATMENT OF DISEASES CAUSED
;    TITLE OF INVENTION:  BY EXPRESSION OF THE BCL-2
;    TITLE OF INVENTION:  GENE
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  611 West Sixth Street
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90017
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/936,421
;      FILING DATE:  19920826
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
;    PRIOR APPLICATION DATA:  described below:                  none
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REFERENCE/DOCKET NUMBER:  197/243
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  11:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  19
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-07-936-421-11

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   89.5%;  Pred. No. 20;
  Matches   17;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         349 AGCCAGCTGCACCTGACGC 367
               |||||||:|||||:|||||
Db           1 AGCCAGCUGCACCUGACGC 19


RESULT 25
US-07-936-421-12
; Sequence 12, Application US/07936421
; Patent No. 5750390
;  GENERAL INFORMATION:
;    APPLICANT:  James D. Thompson
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  TREATMENT OF DISEASES CAUSED
;    TITLE OF INVENTION:  BY EXPRESSION OF THE BCL-2
;    TITLE OF INVENTION:  GENE
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  611 West Sixth Street
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90017
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/936,421
;      FILING DATE:  19920826
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
;    PRIOR APPLICATION DATA:  described below:                  none
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  197/243
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  12:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  19
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-07-936-421-12

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
```

```
  Matches   16;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        378 GCGGGGACGCTTTGCCACG 396
              ||||||||||:::||||||
Db          1 GCGGGGACGCUUUGCCACG 19


RESULT 26
US-07-936-421-14
; Sequence 14, Application US/07936421
; Patent No. 5750390
;  GENERAL INFORMATION:
;    APPLICANT:  James D. Thompson
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  TREATMENT OF DISEASES CAUSED
;    TITLE OF INVENTION:  BY EXPRESSION OF THE BCL-2
;    TITLE OF INVENTION:  GENE
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  611 West Sixth Street
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90017
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/936,421
;      FILING DATE:  19920826
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
;    PRIOR APPLICATION DATA:  described below:                  none
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  197/243
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  14:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  19
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-07-936-421-14

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   78.9%;  Pred. No. 20;
  Matches   15;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        514 AACATCGCCCTGTGGATGA 532
              ||||:|||||:|:|||:||
Db          1 AACAUCGCCCUGUGGAUGA 19


RESULT 27
US-09-109-663-72/c
; Sequence 72, Application US/09109663
; Patent No. 6277981
; GENERAL INFORMATION:
;  APPLICANT: Tu, Guang-Chou
;  APPLICANT: Israel, Yedy
;  TITLE OF INVENTION: AN IMPROVED METHOD FOR DESIGN AND SELECTION OF
;  TITLE OF INVENTION: EFFICACIOUS ANTISENSE OLIGONUCLEOTIDES
;  FILE REFERENCE: 9855-3U1
;  CURRENT APPLICATION NUMBER: US/09/109,663
;  CURRENT FILING DATE: 1998-07-03
;  EARLIER APPLICATION NUMBER: 60/051,705
;  EARLIER FILING DATE: 1997-07-03
;  NUMBER OF SEQ ID NOS: 81
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 72
;   LENGTH: 20
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Known
;   OTHER INFORMATION: Effective ASO
US-09-109-663-72

  Query Match             3.0%;  Score 18.4;  DB 1;  Length 20;
  Best Local Similarity   95.0%;  Pred. No. 25;
  Matches   19;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGAAC 20
              ||||| ||||||||||||||
Db         20 ATGGCACACGCTGGGAGAAC 1


RESULT 28
US-08-217-082A-17/c
; Sequence 17, Application US/08217082A
; Patent No. 5734033
;  GENERAL INFORMATION:
;    APPLICANT:  Reed, John
;    TITLE OF INVENTION:  ANTISENSE OLIGONUCLEOTIDES FOR INHIBITING THE
;    TITLE OF INVENTION:  GROWTH OF CELLS EXPRESSING THE HUMAN BCL-2 GENE
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
;      ADDRESSEE:  P.C.
;      STREET:  224 Airport Parkway
;      CITY:  San Jose
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  95110
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/217,082A
;      FILING DATE:  24-MAR-1994
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/840,716
;      FILING DATE:  21-FEB-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/288,692
;      FILING DATE:  22-DEC-1988
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fortney, Andrew D.
;      REGISTRATION NUMBER:  34,600
;      REFERENCE/DOCKET NUMBER:  3335-067-55 FWC
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (408) 436-2070
;      TELEFAX:  (408) 436-2075
;  INFORMATION FOR SEQ ID NO:  17:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  18 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  other nucleic acid
;      DESCRIPTION:  Synthetic DNA
```

```
US-08-217-082A-17

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 29
US-08-465-485A-17/c
; Sequence 17, Application US/08465485A
; Patent No. 5831066
;  GENERAL INFORMATION:
;    APPLICANT:  Reed, John
;    TITLE OF INVENTION:  Regulation of bcl-2 Gene Expression
;    NUMBER OF SEQUENCES:  29
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
;      ADDRESSEE:  P.C.
;      STREET:  1755 S. Jefferson Davis Hwy., Suite 400
;      CITY:  Arlington
;      STATE:  Virginia
;      COUNTRY:  U.S.A.
;      ZIP:  22202
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/465,485A
;      FILING DATE:  05-JUN-1995
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/124,256
;      FILING DATE:  20-SEP-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/840,716
;      FILING DATE:  21-FEB-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/288,692
;      FILING DATE:  22-DEC-1988
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fortney, Andrew D.
;      REGISTRATION NUMBER:  34,600
;      REFERENCE/DOCKET NUMBER:  3335-070-55 CONT
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (408) 436-2070
;      TELEFAX:  (408) 436-2075
;  INFORMATION FOR SEQ ID NO:  17:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  18 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-465-485A-17

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 30
US-08-465-485A-24/c
; Sequence 24, Application US/08465485A
; Patent No. 5831066
;  GENERAL INFORMATION:
;    APPLICANT:  Reed, John
;    TITLE OF INVENTION:  Regulation of bcl-2 Gene Expression
;    NUMBER OF SEQUENCES:  29
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
;      ADDRESSEE:  P.C.
;      STREET:  1755 S. Jefferson Davis Hwy., Suite 400
;      CITY:  Arlington
;      STATE:  Virginia
;      COUNTRY:  U.S.A.
;      ZIP:  22202
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/465,485A
;      FILING DATE:  05-JUN-1995
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/124,256
;      FILING DATE:  20-SEP-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/840,716
;      FILING DATE:  21-FEB-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/288,692
;      FILING DATE:  22-DEC-1988
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fortney, Andrew D.
;      REGISTRATION NUMBER:  34,600
;      REFERENCE/DOCKET NUMBER:  3335-070-55 CONT
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (408) 436-2070
;      TELEFAX:  (408) 436-2075
;  INFORMATION FOR SEQ ID NO:  24:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  18 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  Other nucleic acid;
;      DESCRIPTION:  Synthetic DNA
;    ANTI-SENSE:  YES
;    FEATURE:
;      NAME/KEY:  Modified_base
;      LOCATION:  16..17
;      OTHER INFORMATION:  Last two internucleoside linkages are
;      OTHER INFORMATION:  phosphorothioates
US-08-465-485A-24

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 31
US-09-080-285-17/c
; Sequence 17, Application US/09080285
; Patent No. 6040181
;  GENERAL INFORMATION:
;    APPLICANT:  Reed, John
;    TITLE OF INVENTION:  Regulation of bcl-2 Gene Expression
;    NUMBER OF SEQUENCES:  29
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
;      ADDRESSEE:  P.C.
```

```
;       STREET:  1755 S. Jefferson Davis Hwy., Suite 400
;       CITY:  Arlington
;       STATE:  Virginia
;       COUNTRY:  U.S.A.
;       ZIP:  22202
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.25
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/09/080,285
;       FILING DATE:
;       CLASSIFICATION:
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 08/465,485
;       FILING DATE:  05-JUN-1995
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 08/124,256
;       FILING DATE:  20-SEP-1993
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 07/840,716
;       FILING DATE:  21-FEB-1992
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  US 07/288,692
;       FILING DATE:  22-DEC-1988
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Fortney, Andrew D.
;       REGISTRATION NUMBER:  34,600
;       REFERENCE/DOCKET NUMBER:  3335-070-55 CONT
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (408) 436-2070
;       TELEFAX:  (408) 436-2075
;   INFORMATION FOR SEQ ID NO:  17:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  18 base pairs
;       TYPE:  nucleic acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
US-09-080-285-17

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 32
US-09-080-285-24/c
; Sequence 24, Application US/09080285
; Patent No. 6040181
;  GENERAL INFORMATION:
;    APPLICANT:  Reed, John
;    TITLE OF INVENTION:  Regulation of bcl-2 Gene Expression
;    NUMBER OF SEQUENCES:  29
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
;      ADDRESSEE:  P.C.
;      STREET:  1755 S. Jefferson Davis Hwy., Suite 400
;      CITY:  Arlington
;      STATE:  Virginia
;      COUNTRY:  U.S.A.
;      ZIP:  22202
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/080,285
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/465,485
;      FILING DATE:  05-JUN-1995
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/124,256
;      FILING DATE:  20-SEP-1993
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/840,716
;      FILING DATE:  21-FEB-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/288,692
;      FILING DATE:  22-DEC-1988
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fortney, Andrew D.
;      REGISTRATION NUMBER:  34,600
;      REFERENCE/DOCKET NUMBER:  3335-070-55 CONT
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (408) 436-2070
;      TELEFAX:  (408) 436-2075
;  INFORMATION FOR SEQ ID NO:  24:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  18 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  Other nucleic acid;
;      DESCRIPTION:  Synthetic DNA
;    ANTI-SENSE:  YES
;    FEATURE:
;      NAME/KEY:  Modified_base
;      LOCATION:  16..17
;      OTHER INFORMATION:  Last two internucleoside linkages are
;      OTHER INFORMATION:  phosphorothioates
US-09-080-285-24

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 33
US-09-249-730-218/c
; Sequence 218, Application US/09249730
; Patent No. 6121000
; GENERAL INFORMATION:
;  APPLICANT: WRIGHT, Jim A.
;  APPLICANT: YOUNG, Aiping H.
;  TITLE OF INVENTION: Antitumor Antisense Sequences Directed Against R1 and
;  TITLE OF INVENTION: R2 Components of Ribonucleotide Reductase
;  FILE REFERENCE: 032396-040
;  CURRENT APPLICATION NUMBER: US/09/249,730
;  CURRENT FILING DATE: 1999-02-11
;  NUMBER OF SEQ ID NOS: 220
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 218
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Human
US-09-249-730-218

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
```

```
RESULT 34
US-09-118-220-1/c
; Sequence 1, Application US/09118220
; Patent No. 6140051
;  GENERAL INFORMATION:
;    APPLICANT:  Brown, Lauren R.
;    APPLICANT:  Xu, Cheng
;    TITLE OF INVENTION:  FLUORESCENT DIBENZAZOLE DERIVATIVES
;    TITLE OF INVENTION:  AND METHODS RELATED THERETO
;    NUMBER OF SEQUENCES:  1
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Knobbe, Martens, Olson & Bear
;      STREET:  620 Newport Center Drive, 16th Floor
;      CITY:  Newport Beach
;      STATE:  CA
;      COUNTRY:  U.S.A.
;      ZIP:  92660
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  Windows
;      SOFTWARE:  FastSEQ for Windows Version 2.0b
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/118,220
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bartfeld, Neil S
;      REGISTRATION NUMBER:  39,901
;      REFERENCE/DOCKET NUMBER:  GENTA.050A
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  619-235-8550
;      TELEFAX:  619-235-0176
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  18 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
US-09-118-220-1

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 35
US-08-738-652-55/c
; Sequence 55, Application US/08738652B
; Patent No. 6207646
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
;  FILE REFERENCE: C1039/7004 HCL
;  CURRENT APPLICATION NUMBER: US/08/738,652B
;  CURRENT FILING DATE: 1996-10-30
;  EARLIER APPLICATION NUMBER: US 08/276,358
;  EARLIER FILING DATE: 1994-07-15
;  EARLIER APPLICATION NUMBER: US 08/386,063
;  EARLIER FILING DATE: 1995-02-07
;  NUMBER OF SEQ ID NOS: 55
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 55
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide
US-08-738-652-55

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 36
US-09-030-701-27/c
; Sequence 27, Application US/09030701B
; Patent No. 6214806
; GENERAL INFORMATION:
;  APPLICANT:  Krieg, Arthur M.
;  APPLICANT:  Schwartz, David A.
;  TITLE OF INVENTION:  USE OF NUCLEIC ACIDS CONTAINING
;  TITLE OF INVENTION:  UNMETHYLATED CpG DINUCLEOTIDE IN THE TREATMENT OF
;  TITLE OF INVENTION:  LPS-ASSOCIATED DISORDERS
;  FILE REFERENCE:  C1039/7011
;  CURRENT APPLICATION NUMBER: US/09/030,701B
;  CURRENT FILING DATE:  1998-02-25
;  PRIOR APPLICATION NUMBER:  60/039,405
;  PRIOR FILING DATE:  1997-02-28
;  NUMBER OF SEQ ID NOS:  65
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 27
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligonucleotide
US-09-030-701-27

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 37
US-09-286-098-59/c
; Sequence 59, Application US/09286098
; Patent No. 6218371
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT: Weiner, George
;  TITLE OF INVENTION: Methods and Products for Stimulating the
;  TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
;  TITLE OF INVENTION: Cytokines
;  FILE REFERENCE: C1039/7026/HCL
;  CURRENT APPLICATION NUMBER: US/09/286,098
;  CURRENT FILING DATE: 1999-04-02
;  EARLIER APPLICATION NUMBER: US 60/080,729
;  EARLIER FILING DATE: 1998-04-03
;  NUMBER OF SEQ ID NOS: 105
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 59
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
```

```
;   OTHER INFORMATION: Synthetic Sequence
US-09-286-098-59

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 38
US-09-286-098-104/c
; Sequence 104, Application US/09286098
; Patent No. 6218371
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT: Weiner, George
;  TITLE OF INVENTION: Methods and Products for Stimulating the
;  TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
;  TITLE OF INVENTION: Cytokines
;  FILE REFERENCE: C1039/7026/HCL
;  CURRENT APPLICATION NUMBER: US/09/286,098
;  CURRENT FILING DATE: 1999-04-02
;  EARLIER APPLICATION NUMBER: US 60/080,729
;  EARLIER FILING DATE: 1998-04-03
;  NUMBER OF SEQ ID NOS: 105
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 104
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-286-098-104

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 39
US-08-960-774-45/c
; Sequence 45, Application US/08960774
; Patent No. 6239116
;  GENERAL INFORMATION:
;    APPLICANT:  Krieg et al.,
;    TITLE OF INVENTION:  IMMUNOSTIMULATORY NUCLEIC ACID MOLECULES
;    NUMBER OF SEQUENCES:  111
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  4225 Executive Square, Suite 1400
;      CITY:  La Jolla
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  92037
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  ASCII text
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/960,774
;      FILING DATE:  30-October-1997
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  U.S. Serial No. 6239116  08/738,652
;      FILING DATE:  October 30, 1996
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Haile, Lisa A.
;      REGISTRATION NUMBER:  38,347
;      REFERENCE/DOCKET NUMBER:  08918/012001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  619/678-5070
;      TELEFAX:  619/678-5099
;  INFORMATION FOR SEQ ID NO:  45:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  18 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  cDNA
US-08-960-774-45

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 40
US-09-078-954-14/c
; Sequence 14, Application US/09078954
; Patent No. 6287591
;  GENERAL INFORMATION:
;    APPLICANT:  SEMPLE, Sean C.
;    APPLICANT:  Klimuk, Sandra K.
;    APPLICANT:  Harasym, Troy
;    APPLICANT:  Hope, Michael J.
;    APPLICANT:  Ansell, Steven M.
;    APPLICANT:  Cullis, Pieter
;    APPLICANT:  Scherrer, Peter
;    APPLICANT:  Geiser, Timothy
;    APPLICANT:  Zon, Gerald
;    APPLICANT:  Debeyer, Dan
;    TITLE OF INVENTION:  High Efficiency Encapsulation of Charged Therapeutic Agents ir
;    TITLE OF INVENTION:  Lipid Vesicles
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Oppedahl & Larson
;      STREET:  PO Box 5270
;      CITY:  Frisco
;      STATE:  CO
;      COUNTRY:  USA
;      ZIP:  80443-5270
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette, 3.5 inch, 1.44 Mb
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS 5.0
;      SOFTWARE:  Word Perfect
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/078,954
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/856,374
;      FILING DATE:  14-MAY-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Marina T. Larson
;      REGISTRATION NUMBER:  32,038
;      REFERENCE/DOCKET NUMBER:  INEX.P-003
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (970) 668-2050
;      TELEFAX:  (970) 668-2082
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  14:
;    SEQUENCE CHARACTERISTICS:
```

```
;      LENGTH:  18
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  other nucleic acid
;    HYPOTHETICAL:  no
;    ANTI-SENSE:  yes
US-09-078-954-14

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 41
US-09-325-193A-51/c
; Sequence 51, Application US/09325193A
; Patent No. 6406705
; GENERAL INFORMATION:
;  APPLICANT:  Davis, Heather L.
;  APPLICANT:  Schorr, Joachim
;  APPLICANT:  Krieg, Arthur M.
;  TITLE OF INVENTION:  Use of Nucleic Acids Containing
;  TITLE OF INVENTION:  Unmethylated CpG Dinucleotide as an Adjuvant
;  FILE REFERENCE:  C1039/7025/HCL
;  CURRENT APPLICATION NUMBER: US/09/325,193A
;  CURRENT FILING DATE:  1999-06-03
;  PRIOR APPLICATION NUMBER:  US 09/154,614
;  PRIOR FILING DATE:  1998-09-16
;  PRIOR APPLICATION NUMBER:  PCT/US98/04703
;  PRIOR FILING DATE:  1998-03-10
;  PRIOR APPLICATION NUMBER:  US 60/040,376
;  PRIOR FILING DATE:  1997-03-10
;  NUMBER OF SEQ ID NOS:  98
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 51
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-09-325-193A-51

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 42
US-09-724-426-17/c
; Sequence 17, Application US/09724426
; Patent No. 6414134
; GENERAL INFORMATION:
;  APPLICANT: Reed, John
;  TITLE OF INVENTION: Regulation of BCL-2 Gene Expression
;  FILE REFERENCE: 10412-024
;  CURRENT APPLICATION NUMBER: US/09/724,426
;  CURRENT FILING DATE:  2000-11-28
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 17
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-724-426-17

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 43
US-09-724-426-24/c
; Sequence 24, Application US/09724426
; Patent No. 6414134
; GENERAL INFORMATION:
;  APPLICANT: Reed, John
;  TITLE OF INVENTION: Regulation of BCL-2 Gene Expression
;  FILE REFERENCE: 10412-024
;  CURRENT APPLICATION NUMBER: US/09/724,426
;  CURRENT FILING DATE:  2000-11-28
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 24
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-09-724-426-24

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 44
US-09-191-170-53/c
; Sequence 53, Application US/09191170
; Patent No. 6429199
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT: Hartmann, Gunther
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
;  TITLE OF INVENTION: for Activating Dendritic Cells
;  FILE REFERENCE: C1039/7017
;  CURRENT APPLICATION NUMBER: US/09/191,170
;  CURRENT FILING DATE: 1998-11-13
;  EARLIER APPLICATION NUMBER: US 08/960,774
;  EARLIER FILING DATE: 1997-10-30
;  EARLIER APPLICATION NUMBER: US 08/738,652
;  EARLIER FILING DATE: 1996-10-30
;  EARLIER APPLICATION NUMBER: US 08/386,063
;  EARLIER FILING DATE: 1995-02-07
;  EARLIER APPLICATION NUMBER: US 08/276,358
;  EARLIER FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 99
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 53
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligonucleotide
US-09-191-170-53

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
```

```
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 45
US-09-136-080E-45/c
; Sequence 45, Application US/09136080E
; Patent No. 6518017
; GENERAL INFORMATION:
;  APPLICANT: Riley, Timothy A.
;  APPLICANT:  Brown, Bob D.
;  APPLICANT:  Arnold, Lyle J.
;  TITLE OF INVENTION: COMBINATORIAL ANTISENSE LIBRARY
;  FILE REFERENCE: OASBIO.003A
;  CURRENT APPLICATION NUMBER: US/09/136,080E
;  CURRENT FILING DATE:  1998-08-18
;  NUMBER OF SEQ ID NOS: 54
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 45
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligonucleotide
US-09-136-080E-45

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 46
US-09-690-921-2/c
; Sequence 2, Application US/09690921
; Patent No. 6544518
; GENERAL INFORMATION:
;  APPLICANT:  Friede, Martin
;  APPLICANT:  Gerard, Catherine
;  APPLICANT:  Hermand, Philippe
;  TITLE OF INVENTION:  Vaccines
;  FILE REFERENCE:  B45181-1
;  CURRENT APPLICATION NUMBER: US/09/690,921
;  CURRENT FILING DATE:  2000-10-18
;  PRIOR APPLICATION NUMBER:  PCT/EP00/02920
;  PRIOR FILING DATE:  2000-04-04
;  PRIOR APPLICATION NUMBER:  09/301,829
;  PRIOR FILING DATE:  1999-04-29
;  PRIOR APPLICATION NUMBER:  9908885.8
;  PRIOR FILING DATE:  1999-04-19
;  NUMBER OF SEQ ID NOS:  5
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 2
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Human
US-09-690-921-2

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 47
US-09-301-829A-2/c
; Sequence 2, Application US/09301829A
; Patent No. 6558670
; GENERAL INFORMATION:
;  APPLICANT:  Friede, Martin
;  APPLICANT:  Hermand, Philippe
;  TITLE OF INVENTION:  VACCINES
;  FILE REFERENCE:  B45181
;  CURRENT APPLICATION NUMBER: US/09/301,829A
;  CURRENT FILING DATE:  1999-04-29
;  PRIOR APPLICATION NUMBER:  GB9908885.8
;  PRIOR FILING DATE:  1999-04-19
;  NUMBER OF SEQ ID NOS:  3
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 2
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Immunostimulatory oligonucleotide sequence comprising
;   OTHER INFORMATION: one or more CpG motifs
US-09-301-829A-2

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 48
US-09-249-247-218/c
; Sequence 218, Application US/09249247
; Patent No. 6593305
; GENERAL INFORMATION:
;  APPLICANT: WRIGHT, Jim A.
;  APPLICANT: YOUNG, Aiping H.
;  TITLE OF INVENTION: Antitumor Antisense Sequences Directed Against R1 and
;  TITLE OF INVENTION: R2 Components of Ribonucleotide Reductase
;  FILE REFERENCE: 032396-023
;  CURRENT APPLICATION NUMBER: US/09/249,247
;  CURRENT FILING DATE: 1999-02-11
;  EARLIER APPLICATION NUMBER: US 60/023,040
;  EARLIER FILING DATE: 1996-08-02
;  EARLIER APPLICATION NUMBER: US 60/039,959
;  EARLIER FILING DATE: 1997-03-07
;  EARLIER APPLICATION NUMBER: US 08/904,901
;  EARLIER FILING DATE: 1997-08-01
;  NUMBER OF SEQ ID NOS: 220
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 218
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Human
US-09-249-247-218

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 49
US-09-337-619-45/c
; Sequence 45, Application US/09337619
; Patent No. 6653292
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  TITLE OF INVENTION: Methods of Treating Cancer Using
;  TITLE OF INVENTION: Immunostimulatory Oligonucleotides
;  FILE REFERENCE: C1039/7021/HCL
```

```
;  CURRENT APPLICATION NUMBER: US/09/337,619
;  CURRENT FILING DATE: 1999-06-21
;  EARLIER APPLICATION NUMBER: US 08/960,774
;  EARLIER FILING DATE: 1997-10-30
;  EARLIER APPLICATION NUMBER: US 08/738,652
;  EARLIER FILING DATE: 1996-10-30
;  EARLIER APPLICATION NUMBER: US 08/386,063
;  EARLIER FILING DATE: 1995-02-07
;  EARLIER APPLICATION NUMBER: US 08/276,358
;  EARLIER FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 123
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 45
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-09-337-619-45

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 50
US-09-082-649B-60/c
; Sequence 60, Application US/09082649B
; Patent No. 6339068
; GENERAL INFORMATION:
;  APPLICANT:  Davis, Heather L.
;  APPLICANT:  Krieg, Arthur M.
;  APPLICANT:  Schorr, Joachim
;  APPLICANT:  Wu, Tong
;  TITLE OF INVENTION:  Vectors and Methods for Immunization or
;  TITLE OF INVENTION:  Therapeutic Protocols
;  FILE REFERENCE:  C1039/7009
;  CURRENT APPLICATION NUMBER: US/09/082,649B
;  CURRENT FILING DATE:  1998-05-20
;  PRIOR APPLICATION NUMBER:  US 60/047,233
;  PRIOR FILING DATE:  1997-05-20
;  PRIOR APPLICATION NUMBER:  US 60/047,209
;  PRIOR FILING DATE:  1997-05-20
;  NUMBER OF SEQ ID NOS:  85
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 60
;   LENGTH: 20
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligonucleotide
US-09-082-649B-60

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 27;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 51
US-08-217-082A-8/c
; Sequence 8, Application US/08217082A
; Patent No. 5734033
;  GENERAL INFORMATION:
;    APPLICANT:  Reed, John
;    TITLE OF INVENTION:  ANTISENSE OLIGONUCLEOTIDES FOR INHIBITING THE
;    TITLE OF INVENTION:  GROWTH OF CELLS EXPRESSING THE HUMAN BCL-2 GENE
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
;      ADDRESSEE:  P.C.
;      STREET:  224 Airport Parkway
;      CITY:  San Jose
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  95110
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/217,082A
;      FILING DATE:  24-MAR-1994
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/840,716
;      FILING DATE:  21-FEB-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/288,692
;      FILING DATE:  22-DEC-1988
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fortney, Andrew D.
;      REGISTRATION NUMBER:  34,600
;      REFERENCE/DOCKET NUMBER:  3335-067-55 FWC
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (408) 436-2070
;      TELEFAX:  (408) 436-2075
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  17 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  other nucleic acid
;      DESCRIPTION:  Synthetic DNA
;    ANTI-SENSE:  YES
US-08-217-082A-8

  Query Match             2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 28;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 GCGCACGCTGGGAGAAC 20
              |||||||||||||||||
Db         17 GCGCACGCTGGGAGAAC 1


RESULT 52
US-08-217-082A-9/c
; Sequence 9, Application US/08217082A
; Patent No. 5734033
;  GENERAL INFORMATION:
;    APPLICANT:  Reed, John
;    TITLE OF INVENTION:  ANTISENSE OLIGONUCLEOTIDES FOR INHIBITING THE
;    TITLE OF INVENTION:  GROWTH OF CELLS EXPRESSING THE HUMAN BCL-2 GENE
;    NUMBER OF SEQUENCES:  17
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
;      ADDRESSEE:  P.C.
;      STREET:  224 Airport Parkway
;      CITY:  San Jose
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  95110
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
```

```
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/217,082A
;      FILING DATE:  24-MAR-1994
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/840,716
;      FILING DATE:  21-FEB-1992
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/288,692
;      FILING DATE:  22-DEC-1988
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fortney, Andrew D.
;      REGISTRATION NUMBER:  34,600
;      REFERENCE/DOCKET NUMBER:  3335-067-55 FWC
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (408) 436-2070
;      TELEFAX:  (408) 436-2075
;  INFORMATION FOR SEQ ID NO:  9:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  17 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  other nucleic acid
;      DESCRIPTION:  Synthetic DNA
;    ANTI-SENSE:  YES
US-08-217-082A-9

  Query Match             2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 28;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAG 17
              |||||||||||||||||
Db         17 ATGGCGCACGCTGGGAG 1


RESULT 53
US-07-936-421-10
; Sequence 10, Application US/07936421
; Patent No. 5750390
;  GENERAL INFORMATION:
;    APPLICANT:  James D. Thompson
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  TREATMENT OF DISEASES CAUSED
;    TITLE OF INVENTION:  BY EXPRESSION OF THE BCL-2
;    TITLE OF INVENTION:  GENE
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  611 West Sixth Street
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90017
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/936,421
;      FILING DATE:  19920826
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
;    PRIOR APPLICATION DATA:  described below:                 none
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  197/243
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  17
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-07-936-421-10

  Query Match             2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 28;
  Matches   15;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        284 TGGCCCTCCGCCAAGCC 300
              :|||||:||||||||||
Db          1 UGGCCCUCCGCCAAGCC 17


RESULT 54
US-08-877-831-1/c
; Sequence 1, Application US/08877831
; Patent No. 5935937
;  GENERAL INFORMATION:
;    APPLICANT:  Smith, Mitchell R.
;    TITLE OF INVENTION:  Compositions and Methods for
;    TITLE OF INVENTION:  Inducing Apoptosis
;    NUMBER OF SEQUENCES:  9
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Dann, Dorfman, Herrell and Skillman
;      STREET:  1601 Market Street  Suite 720
;      CITY:  Philadelphia
;      STATE:  PA
;      COUNTRY:  USA
;      ZIP:  19103-2307
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/877,831
;      FILING DATE:  18-JUN-1997
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 60/020,072
;      FILING DATE:  19-JUN-1996
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Hagan, Patrick J.
;      REGISTRATION NUMBER:  27,643
;      REFERENCE/DOCKET NUMBER:  FCCC 96-08
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (215)563-4100
;      TELEFAX:  (215)563-4044
;  INFORMATION FOR SEQ ID NO:  1:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  17 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  not relevant
;    MOLECULE TYPE:  DNA (genomic)
;    HYPOTHETICAL:  NO
;    ANTI-SENSE:  YES
US-08-877-831-1

  Query Match             2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 28;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy          4 GCGCACGCTGGGAGAAC 20
              ||||||||||||||||
Db         17 GCGCACGCTGGGAGAAC 1


RESULT 55
US-09-030-701-41/c
; Sequence 41, Application US/09030701B
; Patent No. 6214806
; GENERAL INFORMATION:
;  APPLICANT:  Krieg, Arthur M.
;  APPLICANT:  Schwartz, David A.
;  TITLE OF INVENTION:  USE OF NUCLEIC ACIDS CONTAINING
;  TITLE OF INVENTION:  UNMETHYLATED CpG DINUCLEOTIDE IN THE TREATMENT OF
;  TITLE OF INVENTION:  LPS-ASSOCIATED DISORDERS
;  FILE REFERENCE:  C1039/7011
;  CURRENT APPLICATION NUMBER: US/09/030,701B
;  CURRENT FILING DATE:  1998-02-25
;  PRIOR APPLICATION NUMBER:  60/039,405
;  PRIOR FILING DATE:  1997-02-28
;  NUMBER OF SEQ ID NOS:  65
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 41
;    LENGTH: 18
;    TYPE: DNA
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: synthetic oligonucleotide
US-09-030-701-41

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 34;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 56
US-09-030-701-60/c
; Sequence 60, Application US/09030701B
; Patent No. 6214806
; GENERAL INFORMATION:
;  APPLICANT:  Krieg, Arthur M.
;  APPLICANT:  Schwartz, David A.
;  TITLE OF INVENTION:  USE OF NUCLEIC ACIDS CONTAINING
;  TITLE OF INVENTION:  UNMETHYLATED CpG DINUCLEOTIDE IN THE TREATMENT OF
;  TITLE OF INVENTION:  LPS-ASSOCIATED DISORDERS
;  FILE REFERENCE:  C1039/7011
;  CURRENT APPLICATION NUMBER: US/09/030,701B
;  CURRENT FILING DATE:  1998-02-25
;  PRIOR APPLICATION NUMBER:  60/039,405
;  PRIOR FILING DATE:  1997-02-28
;  NUMBER OF SEQ ID NOS:  65
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 60
;    LENGTH: 18
;    TYPE: DNA
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: synthetic oligonucleotide
US-09-030-701-60

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 34;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCTCGCTGGGAGA 1


RESULT 57
US-09-286-098-72/c
; Sequence 72, Application US/09286098
; Patent No. 6218371
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT: Weiner, George
;  TITLE OF INVENTION: Methods and Products for Stimulating the
;  TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
;  TITLE OF INVENTION: Cytokines
;  FILE REFERENCE: C1039/7026/HCL
;  CURRENT APPLICATION NUMBER: US/09/286,098
;  CURRENT FILING DATE: 1999-04-02
;  EARLIER APPLICATION NUMBER: US 60/080,729
;  EARLIER FILING DATE: 1998-04-03
;  NUMBER OF SEQ ID NOS: 105
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 72
;    LENGTH: 18
;    TYPE: DNA
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: Synthetic Sequence
US-09-286-098-72

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 34;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 58
US-08-960-774-72/c
; Sequence 72, Application US/08960774
; Patent No. 6239116
;  GENERAL INFORMATION:
;    APPLICANT:  Krieg et al.,
;    TITLE OF INVENTION:  IMMUNOSTIMULATORY NUCLEIC ACID MOLECULES
;    NUMBER OF SEQUENCES:  111
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  4225 Executive Square, Suite 1400
;      CITY:  La Jolla
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  92037
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  ASCII text
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/960,774
;      FILING DATE:  30-October-1997
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  U.S. Serial No. 6239116  08/738,652
;      FILING DATE:  October 30, 1996
;      CLASSIFICATION:  514
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Haile, Lisa A.
;      REGISTRATION NUMBER:  38,347
;      REFERENCE/DOCKET NUMBER:  08918/012001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  619/678-5070
;      TELEFAX:  619/678-5099
;  INFORMATION FOR SEQ ID NO:  72:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  18 base pairs
;      TYPE:  nucleic acid
```

; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
US-08-960-774-72

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 34;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 59
US-09-191-170-66/c
; Sequence 66, Application US/09191170
; Patent No. 6429199
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Hartmann, Gunther
; TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
; TITLE OF INVENTION: for Activating Dendritic Cells
; FILE REFERENCE: C1039/7017
; CURRENT APPLICATION NUMBER: US/09/191,170
; CURRENT FILING DATE: 1998-11-13
; EARLIER APPLICATION NUMBER: US 08/960,774
; EARLIER FILING DATE: 1997-10-30
; EARLIER APPLICATION NUMBER: US 08/738,652
; EARLIER FILING DATE: 1996-10-30
; EARLIER APPLICATION NUMBER: US 08/386,063
; EARLIER FILING DATE: 1995-02-07
; EARLIER APPLICATION NUMBER: US 08/276,358
; EARLIER FILING DATE: 1994-07-15
; NUMBER OF SEQ ID NOS: 99
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 66
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic oligonucleotide
US-09-191-170-66

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 34;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 60
US-09-337-619-72/c
; Sequence 72, Application US/09337619
; Patent No. 6653292
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; TITLE OF INVENTION: Methods of Treating Cancer Using
; TITLE OF INVENTION: Immunostimulatory Oligonucleotides
; FILE REFERENCE: C1039/7021/HCL
; CURRENT APPLICATION NUMBER: US/09/337,619
; CURRENT FILING DATE: 1999-06-21
; EARLIER APPLICATION NUMBER: US 08/960,774
; EARLIER FILING DATE: 1997-10-30
; EARLIER APPLICATION NUMBER: US 08/738,652
; EARLIER FILING DATE: 1996-10-30
; EARLIER APPLICATION NUMBER: US 08/386,063
; EARLIER FILING DATE: 1995-02-07
; EARLIER APPLICATION NUMBER: US 08/276,358
; EARLIER FILING DATE: 1994-07-15
; NUMBER OF SEQ ID NOS: 123
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 72
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Oligonucleotide
US-09-337-619-72

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 34;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 61
US-07-936-421-7
; Sequence 7, Application US/07936421
; Patent No. 5750390
; GENERAL INFORMATION:
; APPLICANT: James D. Thompson
; APPLICANT: Kenneth G. Draper
; TITLE OF INVENTION: METHOD AND REAGENT FOR
; TITLE OF INVENTION: TREATMENT OF DISEASES CAUSED
; TITLE OF INVENTION: BY EXPRESSION OF THE BCL-2
; TITLE OF INVENTION: GENE
; NUMBER OF SEQUENCES: 22
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Lyon & Lyon
; STREET: 611 West Sixth Street
; CITY: Los Angeles
; STATE: California
; COUNTRY: USA
; ZIP: 90017
; COMPUTER READABLE FORM:
; MEDIUM TYPE: 3.5" Diskette, 1.44 Mb storage
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: IBM P.C. DOS (Version 5.0)
; SOFTWARE: WordPerfect (Version 5.1)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/936,421
; FILING DATE: 19920826
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; PRIOR APPLICATION DATA: including application
; PRIOR APPLICATION DATA: described below: none
; APPLICATION NUMBER:
; FILING DATE:
; ATTORNEY/AGENT INFORMATION:
; NAME: Warburg, Richard J.
; REGISTRATION NUMBER: 32,327
; REFERENCE/DOCKET NUMBER: 197/243
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (213) 489-1600
; TELEFAX: (213) 955-0440
; TELEX: 67-3510
; INFORMATION FOR SEQ ID NO: 7:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 16
; TYPE: NUCLEIC ACID
; STRANDEDNESS: single
; TOPOLOGY: linear
US-07-936-421-7

Query Match 2.6%; Score 16; DB 1; Length 16;
Best Local Similarity 81.2%; Pred. No. 33;
Matches 13; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 261 CCCGGTGCCACCTGTG 276
|||||:||||||:|:|

```
Db          1 CCCGGUGCCACCUGUG 16


RESULT 62
US-08-584-040-7436/c
; Sequence 7436, Application US/08584040
; Patent No. 6346398
;  GENERAL INFORMATION:
;    APPLICANT:  Pavco, Pamela
;    APPLICANT:  McSwiggen, James
;    APPLICANT:  Stinchcomb, Dan T.
;    APPLICANT:  Escobedo, Jaime
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR THE
;    TITLE OF INVENTION:  TREATMENT OF DISEASES OR
;    TITLE OF INVENTION:  CONDITIONS RELATED TO LEVELS
;    TITLE OF INVENTION:  OF VASCULAR ENDOTHELIAL
;    TITLE OF INVENTION:  GROWTH FACTOR
;    NUMBER OF SEQUENCES:  8502
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  633 West Fifth Street
;      STREET:  Suite 4700
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  U.S.A.
;      ZIP:  90071-2066
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb
;      MEDIUM TYPE:  storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/584,040
;      FILING DATE:  January 11, 1996
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  60/005,974
;      FILING DATE:  October 26, 1995
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  218/064
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  7436:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  17 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-584-040-7436

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 40;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        563 GGATCCAGGATAACGGA 579
              ||||||||||||||| |||
Db         17 GGATCCAGGATAAAGGA 1


RESULT 63
US-09-371-772B-3243/c
; Sequence 3243, Application US/09371772B
; Patent No. 6566127
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals, Inc.
;  APPLICANT:  Pavco, Pam
;  APPLICANT:  McSwiggen, Jim
;  APPLICANT:  Stinchcomb, Dan
;  APPLICANT:  Escobedo, Jaime
;  TITLE OF INVENTION: Method and Reagent for the Treatment of Diseases or Conditions Rel
;  TITLE OF INVENTION:  Levels of Vascular Endothelial Growth Factor Receptor
;  FILE REFERENCE: MBHB00,876-J (237/198)
;  CURRENT APPLICATION NUMBER: US/09/371,772B
;  CURRENT FILING DATE:  1999-08-10
;  PRIOR APPLICATION NUMBER: US 60/005,974
;  PRIOR FILING DATE: 1995-10-26
;  PRIOR APPLICATION NUMBER: US 08/584,040
;  PRIOR FILING DATE: 1996-01-08
;  NUMBER OF SEQ ID NOS: 14225
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3243
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: Mus sp.
US-09-371-772B-3243

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 40;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        563 GGATCCAGGATAACGGA 579
              ||||||||||||||| |||
Db         17 GGATCCAGGATAAAGGA 1


RESULT 64
US-07-936-421-15/c
; Sequence 15, Application US/07936421
; Patent No. 5750390
;  GENERAL INFORMATION:
;    APPLICANT:  James D. Thompson
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  TREATMENT OF DISEASES CAUSED
;    TITLE OF INVENTION:  BY EXPRESSION OF THE BCL-2
;    TITLE OF INVENTION:  GENE
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  611 West Sixth Street
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90017
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/936,421
;      FILING DATE:  19920826
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
;    PRIOR APPLICATION DATA:  described below:                    none
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  197/243
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  15:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  36
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  single
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;      TOPOLOGY:  linear
US-07-936-421-15

  Query Match             2.2%;  Score 13.6;  DB 1;  Length 36;
  Best Local Similarity   67.9%;  Pred. No. 74;
  Matches   19;  Conservative    0;  Mismatches    9;  Indels    0;  Gaps    0;

Qy        560 CCTGGATCCAGGATAACGGAGGCTGGGT 587
              ||||||||||||     | |  || || |
Db         33 CCTGGATCCAGGTGTGCAGGTGCCGGTT 6


RESULT 65
US-07-936-421-9
; Sequence 9, Application US/07936421
; Patent No. 5750390
;  GENERAL INFORMATION:
;    APPLICANT:  James D. Thompson
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  TREATMENT OF DISEASES CAUSED
;    TITLE OF INVENTION:  BY EXPRESSION OF THE BCL-2
;    TITLE OF INVENTION:  GENE
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  611 West Sixth Street
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90017
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/936,421
;      FILING DATE:  19920826
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
;    PRIOR APPLICATION DATA:  described below:                  none
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  197/243
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  9:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  13
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-07-936-421-9

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   92.3%;  Pred. No. 51;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        225 GGCTGCCCCCGGC 237
              |||:||||||||
Db          1 GGCUGCCCCCGGC 13


RESULT 66
US-09-216-584-5
; Sequence 5, Application US/09216584
; Patent No. 6548657
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-853-A; RPI 237/167
;  CURRENT APPLICATION NUMBER: US/09/216,584
;  CURRENT FILING DATE:  1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 5
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-09-216-584-5

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 51;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        365 CGCCCTTCACCGC 377
              |||||||||||||
Db          1 CGCCCTTCACCGC 13


RESULT 67
US-09-216-584-6
; Sequence 6, Application US/09216584
; Patent No. 6548657
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-853-A; RPI 237/167
;  CURRENT APPLICATION NUMBER: US/09/216,584
;  CURRENT FILING DATE:  1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 6
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-09-216-584-6

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 51;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        407 AGCTCTTCAGGGA 419
              |||||||||||||
Db          1 AGCTCTTCAGGGA 13
```

```
RESULT 68
US-09-216-584-8
; Sequence 8, Application US/09216584
; Patent No. 6548657
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-853-A; RPI 237/167
;  CURRENT APPLICATION NUMBER: US/09/216,584
;  CURRENT FILING DATE:  1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 8
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-09-216-584-8

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 51;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        533 CTGAGTACCTGAA 545
              |||||||||||||
Db          1 CTGAGTACCTGAA 13


RESULT 69
US-09-216-584-9
; Sequence 9, Application US/09216584
; Patent No. 6548657
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-853-A; RPI 237/167
;  CURRENT APPLICATION NUMBER: US/09/216,584
;  CURRENT FILING DATE:  1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 9
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-09-216-584-9

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 51;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        452 TTGAGTTCGGTGG 464
              |||||||||||||
Db          1 TTGAGTTCGGTGG 13


RESULT 70
US-09-216-584-10
; Sequence 10, Application US/09216584
; Patent No. 6548657
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-853-A; RPI 237/167
;  CURRENT APPLICATION NUMBER: US/09/216,584
;  CURRENT FILING DATE:  1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 10
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-09-216-584-10

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 51;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         47 TGAAGTACATCCA 59
              |||||||||||||
Db          1 TGAAGTACATCCA 13


RESULT 71
US-09-216-584-11
; Sequence 11, Application US/09216584
; Patent No. 6548657
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-853-A; RPI 237/167
;  CURRENT APPLICATION NUMBER: US/09/216,584
;  CURRENT FILING DATE:  1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 11
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-09-216-584-11

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 51;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy        273 TGTGGTCCACCTG 285
              |||||||||||||
Db          1 TGTGGTCCACCTG 13


RESULT 72
US-09-216-584-12
; Sequence 12, Application US/09216584
; Patent No. 6548657
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-853-A; RPI 237/167
;  CURRENT APPLICATION NUMBER: US/09/216,584
;  CURRENT FILING DATE:  1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 12
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-09-216-584-12

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 51;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        169 CCCCATCCAGCCG 181
              |||||||||||||
Db          1 CCCCATCCAGCCG 13


RESULT 73
US-09-216-584-13
; Sequence 13, Application US/09216584
; Patent No. 6548657
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-853-A; RPI 237/167
;  CURRENT APPLICATION NUMBER: US/09/216,584
;  CURRENT FILING DATE:  1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 13
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-09-216-584-13

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 51;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        561 CTGGATCCAGGAT 573
              |||||||||||||
Db          1 CTGGATCCAGGAT 13


RESULT 74
US-09-855-159A-13
; Sequence 13, Application US/09855159A
; Patent No. 6620595
; GENERAL INFORMATION:
;  APPLICANT: Cannon, Paula
;  APPLICANT:  Barcova, Maria
;  TITLE OF INVENTION: Retroviral Vectors Comprising An Enhanced 3' Transcription Termin
;  TITLE OF INVENTION:  Structure
;  FILE REFERENCE: 4-31439A/USC
;  CURRENT APPLICATION NUMBER: US/09/855,159A
;  CURRENT FILING DATE:  2001-05-14
;  PRIOR APPLICATION NUMBER: US 60/203,884
;  PRIOR FILING DATE: 2000-05-12
;  NUMBER OF SEQ ID NOS: 15
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 13
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Simian virus 40
US-09-855-159A-13

  Query Match             2.1%;  Score 13;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 55;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         57 CCATTATAAGCTG 69
              |||||||||||||
Db          1 CCATTATAAGCTG 13


RESULT 75
US-07-936-421-3
; Sequence 3, Application US/07936421
; Patent No. 5750390
;  GENERAL INFORMATION:
;    APPLICANT:  James D. Thompson
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  TREATMENT OF DISEASES CAUSED
;    TITLE OF INVENTION:  BY EXPRESSION OF THE BCL-2
;    TITLE OF INVENTION:  GENE
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  611 West Sixth Street
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90017
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/936,421
;      FILING DATE:  19920826
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
;    PRIOR APPLICATION DATA:  described below:                    none
;      APPLICATION NUMBER:
;      FILING DATE:
```

```
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  197/243
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  3:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-07-936-421-3

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   75.0%;  Pred. No. 58;
  Matches    9;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         46 ATGAAGTACATC 57
              |:||||:|||:|
Db          1 AUGAAGUACAUC 12


RESULT 76
US-08-778-702-10/c
; Sequence 10, Application US/08778702
; Patent No. 5763186
;  GENERAL INFORMATION:
;    APPLICANT:  Ludtke, Douglas N.
;    APPLICANT:  Monahan, John E.
;    APPLICANT:  Unger, John T.
;    TITLE OF INVENTION:  Use of Antisense Oligomers in a
;    TITLE OF INVENTION:  Process for Controlling Contamination in Nucleic Acid
;    TITLE OF INVENTION:  Amplification Reactions
;    NUMBER OF SEQUENCES:  16
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Ciba Corning Diagnostics Corp.
;      STREET:  63 No. 5763186th Street
;      CITY:  Medfield
;      STATE:  Massachusetts
;      COUNTRY:  USA
;      ZIP:  02052
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette 3.5 inch, 1.44 Mb storage
;      COMPUTER:  IBM PS/2
;      OPERATING SYSTEM:  IBM-DOS 5.0
;      SOFTWARE:  Word Perfect 5.1
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/778,702
;      FILING DATE:  03-JAN-1997
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/157,364
;      FILING DATE:  23-NOV-1993
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  MORGENSTERN, Arthur S.
;      REGISTRATION NUMBER:  28,244
;      REFERENCE/DOCKET NUMBER:  CCD-141
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  508 359-3836
;      TELEFAX:  508 359-3885
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  12 bases
;      TYPE:  nucleic acid
;      STRANDEDNESS:  Single
;      TOPOLOGY:  Linear
;    MOLECULE TYPE:
;      DESCRIPTION:  Called Clamp QB-1.
;    HYPOTHETICAL:  No
;    ANTI-SENSE:  Yes
;    POSITION IN GENOME:
;      UNITS:  Base 64 to base 75 of the negative strand
;      UNITS:  nanovariant sequence.
US-08-778-702-10

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        567 CCAGGATAACGG 578
              ||||||||||||
Db         12 CCAGGATAACGG 1


RESULT 77
US-09-475-947A-126/c
; Sequence 126, Application US/09475947A
; Patent No. 6472154
; GENERAL INFORMATION:
;  APPLICANT: Garner, Harold R.
;  APPLICANT:  Wren, Jonathan D.
;  APPLICANT:  Minna, John D.
;  TITLE OF INVENTION: Polymorphic Repeats in Human Genes
;  FILE REFERENCE: UTSD0667
;  CURRENT APPLICATION NUMBER: US/09/475,947A
;  CURRENT FILING DATE:  1999-12-31
;  NUMBER OF SEQ ID NOS: 346
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 126
;   LENGTH: 12
;   TYPE: DNA
;   ORGANISM: human
US-09-475-947A-126

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        115 CCCCCGGGGGCC 126
              ||||||||||||
Db         12 CCCCCGGGGGCC 1


RESULT 78
US-07-936-421-13
; Sequence 13, Application US/07936421
; Patent No. 5750390
;  GENERAL INFORMATION:
;    APPLICANT:  James D. Thompson
;    APPLICANT:  Kenneth G. Draper
;    TITLE OF INVENTION:  METHOD AND REAGENT FOR
;    TITLE OF INVENTION:  TREATMENT OF DISEASES CAUSED
;    TITLE OF INVENTION:  BY EXPRESSION OF THE BCL-2
;    TITLE OF INVENTION:  GENE
;    NUMBER OF SEQUENCES:  22
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Lyon & Lyon
;      STREET:  611 West Sixth Street
;      CITY:  Los Angeles
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  90017
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  3.5" Diskette, 1.44 Mb storage
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  IBM P.C. DOS (Version 5.0)
;      SOFTWARE:  WordPerfect (Version 5.1)
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/936,421
;      FILING DATE:  19920826
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;    PRIOR APPLICATION DATA:  including application
```

```
;    PRIOR APPLICATION DATA:  described below:                    none
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Warburg, Richard J.
;      REGISTRATION NUMBER:  32,327
;      REFERENCE/DOCKET NUMBER:  197/243
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (213) 489-1600
;      TELEFAX:  (213) 955-0440
;      TELEX:  67-3510
;  INFORMATION FOR SEQ ID NO:  13:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  11
;      TYPE:  NUCLEIC ACID
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-07-936-421-13

  Query Match             1.8%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   90.9%;  Pred. No. 66;
  Matches   10;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        479 AGAGCGTCAAC 489
              |||||:||||
Db          1 AGAGCGUCAAC 11


RESULT 79
US-09-475-947A-126
; Sequence 126, Application US/09475947A
; Patent No. 6472154
; GENERAL INFORMATION:
;  APPLICANT: Garner, Harold R.
;  APPLICANT:  Wren, Jonathan D.
;  APPLICANT:  Minna, John D.
;  TITLE OF INVENTION: Polymorphic Repeats in Human Genes
;  FILE REFERENCE: UTSD0667
;  CURRENT APPLICATION NUMBER: US/09/475,947A
;  CURRENT FILING DATE:  1999-12-31
;  NUMBER OF SEQ ID NOS: 346
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 126
;   LENGTH: 12
;   TYPE: DNA
;   ORGANISM: human
US-09-475-947A-126

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 72;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        114 GCCCCCGGGGG 124
              |||||||||||
Db          2 GCCCCCGGGGG 12


RESULT 80
US-09-030-701-38/c
; Sequence 38, Application US/09030701B
; Patent No. 6214806
; GENERAL INFORMATION:
;  APPLICANT:  Krieg, Arthur M.
;  APPLICANT:  Schwartz, David A.
;  TITLE OF INVENTION:  USE OF NUCLEIC ACIDS CONTAINING
;  TITLE OF INVENTION:  UNMETHYLATED CpG DINUCLEOTIDE IN THE TREATMENT OF
;  TITLE OF INVENTION:  LPS-ASSOCIATED DISORDERS
;  FILE REFERENCE:  C1039/7011
;  CURRENT APPLICATION NUMBER: US/09/030,701B
;  CURRENT FILING DATE:  1998-02-25
;  PRIOR APPLICATION NUMBER:  60/039,405
;  PRIOR FILING DATE:  1997-02-28
;  NUMBER OF SEQ ID NOS:  65
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 38
;   LENGTH: 12
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligonucleotide
US-09-030-701-38

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 72;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              |||||||||||
Db         12 GGCGCACGCTG 2


RESULT 81
US-09-286-098-69/c
; Sequence 69, Application US/09286098
; Patent No. 6218371
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT: Weiner, George
;  TITLE OF INVENTION: Methods and Products for Stimulating the
;  TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
;  TITLE OF INVENTION: Cytokines
;  FILE REFERENCE: C1039/7026/HCL
;  CURRENT APPLICATION NUMBER: US/09/286,098
;  CURRENT FILING DATE: 1999-04-02
;  EARLIER APPLICATION NUMBER: US 60/080,729
;  EARLIER FILING DATE: 1998-04-03
;  NUMBER OF SEQ ID NOS: 105
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 69
;   LENGTH: 12
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-286-098-69

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 72;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              |||||||||||
Db         12 GGCGCACGCTG 2


RESULT 82
US-08-960-774-69/c
; Sequence 69, Application US/08960774
; Patent No. 6239116
;  GENERAL INFORMATION:
;    APPLICANT:  Krieg et al.,
;    TITLE OF INVENTION:  IMMUNOSTIMULATORY NUCLEIC ACID MOLECULES
;    NUMBER OF SEQUENCES:  111
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  4225 Executive Square, Suite 1400
;      CITY:  La Jolla
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  92037
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  ASCII text
;    CURRENT APPLICATION DATA:
```

```
;       APPLICATION NUMBER:  US/08/960,774
;       FILING DATE:  30-October-1997
;       CLASSIFICATION:  514
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  U.S. Serial No. 6239116  08/738,652
;       FILING DATE:  October 30, 1996
;       CLASSIFICATION:  514
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Haile, Lisa A.
;       REGISTRATION NUMBER:  38,347
;       REFERENCE/DOCKET NUMBER:  08918/012001
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  619/678-5070
;       TELEFAX:  619/678-5099
;   INFORMATION FOR SEQ ID NO:  69:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  12 base pairs
;       TYPE:  nucleic acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  cDNA
US-08-960-774-69

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 72;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||||
Db         12 GGCGCACGCTG 2


RESULT 83
US-09-325-193A-59/c
; Sequence 59, Application US/09325193A
; Patent No. 6406705
; GENERAL INFORMATION:
;  APPLICANT:  Davis, Heather L.
;  APPLICANT:  Schorr, Joachim
;  APPLICANT:  Krieg, Arthur M.
;  TITLE OF INVENTION:  Use of Nucleic Acids Containing
;  TITLE OF INVENTION:  Unmethylated CpG Dinucleotide as an Adjuvant
;  FILE REFERENCE:  C1039/7025/HCL
;  CURRENT APPLICATION NUMBER: US/09/325,193A
;  CURRENT FILING DATE:  1999-06-03
;  PRIOR APPLICATION NUMBER:  US 09/154,614
;  PRIOR FILING DATE:  1998-09-16
;  PRIOR APPLICATION NUMBER:  PCT/US98/04703
;  PRIOR FILING DATE:  1998-03-10
;  PRIOR APPLICATION NUMBER:  US 60/040,376
;  PRIOR FILING DATE:  1997-03-10
;  NUMBER OF SEQ ID NOS:  98
;  SOFTWARE:  FastSEQ for Windows Version 3.0
; SEQ ID NO 59
;   LENGTH: 12
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-09-325-193A-59

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 72;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||||
Db         12 GGCGCACGCTG 2


RESULT 84
US-09-191-170-63/c
; Sequence 63, Application US/09191170
; Patent No. 6429199
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT: Hartmann, Gunther
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
;  TITLE OF INVENTION: for Activating Dendritic Cells
;  FILE REFERENCE: C1039/7017
;  CURRENT APPLICATION NUMBER: US/09/191,170
;  CURRENT FILING DATE: 1998-11-13
;  EARLIER APPLICATION NUMBER: US 08/960,774
;  EARLIER FILING DATE: 1997-10-30
;  EARLIER APPLICATION NUMBER: US 08/738,652
;  EARLIER FILING DATE: 1996-10-30
;  EARLIER APPLICATION NUMBER: US 08/386,063
;  EARLIER FILING DATE: 1995-02-07
;  EARLIER APPLICATION NUMBER: US 08/276,358
;  EARLIER FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 99
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 63
;   LENGTH: 12
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligonucleotide
US-09-191-170-63

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 72;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||||
Db         12 GGCGCACGCTG 2


RESULT 85
US-09-337-619-69/c
; Sequence 69, Application US/09337619
; Patent No. 6653292
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  TITLE OF INVENTION: Methods of Treating Cancer Using
;  TITLE OF INVENTION: Immunostimulatory Oligonucleotides
;  FILE REFERENCE: C1039/7021/HCL
;  CURRENT APPLICATION NUMBER: US/09/337,619
;  CURRENT FILING DATE: 1999-06-21
;  EARLIER APPLICATION NUMBER: US 08/960,774
;  EARLIER FILING DATE: 1997-10-30
;  EARLIER APPLICATION NUMBER: US 08/738,652
;  EARLIER FILING DATE: 1996-10-30
;  EARLIER APPLICATION NUMBER: US 08/386,063
;  EARLIER FILING DATE: 1995-02-07
;  EARLIER APPLICATION NUMBER: US 08/276,358
;  EARLIER FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 123
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 69
;   LENGTH: 12
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-09-337-619-69

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 72;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||||
Db         12 GGCGCACGCTG 2
```

Search completed: September 22, 2004, 08:57:09
Job time : 1 secs

Blank Sheet

GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: September 29, 2004, 10:46:25 ; Search time 1 Seconds
(without alignments)
1.363 Million cell updates/sec

Title: US-09-375-514-19
Perfect score: 5086
Sequence: 1 gcgcccgcccctccgcgccg.....caatgaatgtatataaaagc 5086

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

Searched: 4 seqs, 134 residues

Total number of hits satisfying chosen parameters: 8

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 4 summaries

Database : rni19.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
c 1	18.4	0.4	35	1	US-07-714-131C-206	Sequence 206, App
c 2	17.6	0.3	33	1	US-07-813-338A-60	Sequence 60, Appl
c 3	17.6	0.3	33	1	US-07-812-421-10	Sequence 10, Appl
c 4	17.6	0.3	33	1	US-07-812-421-15	Sequence 15, Appl

ALIGNMENTS

RESULT 1
US-07-714-131C-206/c
; Sequence 206, Application US/07714131C
; Patent No. 5475096
; GENERAL INFORMATION:
; APPLICANT: Larry Gold
; APPLICANT: Craig Tuerk
; TITLE OF INVENTION: Nucleic Acid Ligands
; NUMBER OF SEQUENCES: 344
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Beaton & Swanson, P.C.
; STREET: 4582 South Ulster Street Parkway, #403
; CITY: Denver
; STATE: Colorado
; COUNTRY: USA
; ZIP: 80237
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 5.25 inch, 360 Kb storage
; COMPUTER: IBM compatible
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: WordPerfect 5.1
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/714,131C
; FILING DATE: June 10, 1991
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; ATTORNEY/AGENT INFORMATION:
; NAME: Barry J. Swanson
; REGISTRATION NUMBER: 33,215
; REFERENCE/DOCKET NUMBER:
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (303) 850-9900
; TELEFAX: (303) 850-9401
; INFORMATION FOR SEQ ID NO: 206:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 35 nucleotides
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-07-714-131C-206

Query Match 0.4%; Score 18.4; DB 1; Length 35;
Best Local Similarity 78.6%; Pred. No. 1.5;
Matches 22; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 3351 GCCCGTTTTCACGTGGAGCATAGGAGCC 3378
|||| ||||| ||| | |||| ||| ||
Db 33 GCCCCTTTTCCCGTTGGGCATCGGAACC 6

RESULT 2
US-07-813-338A-60/c
; Sequence 60, Application US/07813338A
; Patent No. 5747244
; GENERAL INFORMATION:
; APPLICANT: Sheridan, Patrick
; APPLICANT: Chang, Chu-An
; APPLICANT: Running, Joyce
; APPLICANT: Urdea, Michael S.
; TITLE OF INVENTION: PROCESS FOR IMMOBILIZING NUCLEIC ACID
; TITLE OF INVENTION: PROBES ON POLYSTYRENE SURFACES
; NUMBER OF SEQUENCES: 70
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: CHIRON CORPORATION - R440
; STREET: P.O. Box 8097
; CITY: Emeryville
; STATE: CA
; COUNTRY: USA
; ZIP: 94662-8097
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/813,338A
; FILING DATE: 23-DEC-1991
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Goldman, Kenneth, M.
; REGISTRATION NUMBER: 34,174
; REFERENCE/DOCKET NUMBER: 0232.001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (510) 601-2719
; TELEFAX: (510) 655-3542
; TELEX: N/A
; INFORMATION FOR SEQ ID NO: 60:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 33 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
US-07-813-338A-60

Query Match 0.3%; Score 17.6; DB 1; Length 33;
Best Local Similarity 53.1%; Pred. No. 2.2;
Matches 17; Conservative 8; Mismatches 7; Indels 0; Gaps 0;

```
Qy       1692 CGGCGCCGCCGCGGGGCCTGCGCTCAGCCCGG 1723
              |::: |    |: ||::||| ||:|||||:||
Db         33 CRRYCCGAGGGYAGGRYCTGGGCYCAGCCYGG 2


RESULT 3
US-07-812-421-10/c
; Sequence 10, Application US/07812421
; Patent No. 5932697
;  GENERAL INFORMATION:
;    APPLICANT:  Caceci, Thomas
;    APPLICANT:  Toth, Thomas E.
;    APPLICANT:  Szumanski, Maria B.W.
;    TITLE OF INVENTION:  SYNTHETIC ANTIFREEZE PEPTIDE AND
;    TITLE OF INVENTION:  SYNTHETIC GENE CODING FOR ITS PRODUCTION
;    NUMBER OF SEQUENCES:  43
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  WHITHAM, CURTIS & WHITHAM
;      STREET:  Reston Intl. Center, 11800 Sunrise Valley Dr.,
;      STREET:  Suite 900
;      CITY:  Reston
;      STATE:  VA
;      COUNTRY:  USA
;      ZIP:  20191
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/812,421
;      FILING DATE:  23-DEC-1991
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/588,437
;      FILING DATE:  25-SEP-1990
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Whitham, Michael E.
;      REGISTRATION NUMBER:  32,635
;      REFERENCE/DOCKET NUMBER:  CIT.016
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  703-391-2510
;      TELEFAX:  703-391-9035
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  33 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA
US-07-812-421-10

  Query Match             0.3%;  Score 17.6;  DB 1;  Length 33;
  Best Local Similarity   71.9%;  Pred. No. 2.2;
  Matches   23;  Conservative    0;  Mismatches    9;  Indels    0;  Gaps    0;

Qy         74 GCTGCCGCCGCCGCCGCTGCCAGCGAAGGTGC 105
              || || || ||||| || |||| || || | |
Db         32 GCAGCTGCGGCCGCGGCAGCCACCGCAGCTAC 1


RESULT 4
US-07-812-421-15/c
; Sequence 15, Application US/07812421
; Patent No. 5932697
;  GENERAL INFORMATION:
;    APPLICANT:  Caceci, Thomas
;    APPLICANT:  Toth, Thomas E.
;    APPLICANT:  Szumanski, Maria B.W.
;    TITLE OF INVENTION:  SYNTHETIC ANTIFREEZE PEPTIDE AND
;    TITLE OF INVENTION:  SYNTHETIC GENE CODING FOR ITS PRODUCTION
;    NUMBER OF SEQUENCES:  43
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  WHITHAM, CURTIS & WHITHAM
;      STREET:  Reston Intl. Center, 11800 Sunrise Valley Dr.,
;      STREET:  Suite 900
;      CITY:  Reston
;      STATE:  VA
;      COUNTRY:  USA
;      ZIP:  20191
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.30
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/07/812,421
;      FILING DATE:  23-DEC-1991
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 07/588,437
;      FILING DATE:  25-SEP-1990
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Whitham, Michael E.
;      REGISTRATION NUMBER:  32,635
;      REFERENCE/DOCKET NUMBER:  CIT.016
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  703-391-2510
;      TELEFAX:  703-391-9035
;  INFORMATION FOR SEQ ID NO:  15:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  33 base pairs
;      TYPE:  nucleic acid
;      STRANDEDNESS:  double
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  DNA
US-07-812-421-15

  Query Match             0.3%;  Score 17.6;  DB 1;  Length 33;
  Best Local Similarity   71.9%;  Pred. No. 2.2;
  Matches   23;  Conservative    0;  Mismatches    9;  Indels    0;  Gaps    0;

Qy         74 GCTGCCGCCGCCGCCGCTGCCAGCGAAGGTGC 105
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Db         32 GCAGCTGCGGCCGCGGCAGCCTGCGCAGCTAC 1


Search completed: September 29, 2004, 10:46:38
Job time : 1 secs
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102(e) cl 70 & 74

GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: September 22, 2004, 08:52:48 ; Search time 2 Seconds
(without alignments)
2.445 Million cell updates/sec

Title: US-09-375-514B-22
Perfect score: 615
Sequence: 1 atggcgcacgctgggagaac.....ctggtgatgtgagtctgggc 615

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

Searched: 220 seqs, 3976 residues

Total number of hits satisfying chosen parameters: 440

Minimum DB seq length: 10
Maximum DB seq length: 40

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 236 summaries

Database : rge22.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
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	2	37.4	6.1	39	1	AX377552	ACCESSION:AX377552
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	4	36	5.9	36	1	AR007301	ACCESSION:AR007301
	5	33	5.4	33	1	AR007291	ACCESSION:AR007291
	6	28	4.6	28	1	AR007294	ACCESSION:AR007294
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c	83	18	2.9	18	1	AR303119	ACCESSION:AR303119
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ALIGNMENTS

RESULT 1
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LOCUS AX377551 39 bp DNA linear PAT 18-MAR-2002
DEFINITION Sequence 28 from Patent WO0212553.
ACCESSION AX377551
VERSION AX377551.1 GI:19573737
KEYWORDS .
SOURCE Homo sapiens (human)
ORGANISM Homo sapiens
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

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REFERENCE   1
  AUTHORS   Kappel,A., Polakowski,T., Pignot,M., Windhab,N., Behrensdorf,H. and
            Muth,J.
  TITLE     Method for detecting mutations in nucleotide sequences
  JOURNAL   Patent: WO 0212553-A 28 14-FEB-2002;
            Nanogen Recognomics GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .39
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
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  Query Match             6.3%;  Score 39;  DB 1;  Length 39;
  Best Local Similarity   100.0%;  Pred. No. 1.4;
  Matches   39;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        155 AGCCCGGGCACACGCCCCATCCAGCCGCATCCCGCGACC 193
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RESULT 2
AX377552
LOCUS       AX377552                 39 bp    DNA     linear   PAT 18-MAR-2002
DEFINITION  Sequence 29 from Patent WO0212553.
ACCESSION   AX377552
VERSION     AX377552.1  GI:19573738
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Kappel,A., Polakowski,T., Pignot,M., Windhab,N., Behrensdorf,H. and
            Muth,J.
  TITLE     Method for detecting mutations in nucleotide sequences
  JOURNAL   Patent: WO 0212553-A 29 14-FEB-2002;
            Nanogen Recognomics GmbH (DE)
FEATURES             Location/Qualifiers
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  Query Match             6.1%;  Score 37.4;  DB 1;  Length 39;
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  Matches   38;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        155 AGCCCGGGCACACGCCCCATCCAGCCGCATCCCGCGACC 193
              |||||||||||||||||| ||||||||||||||||||
Db          1 AGCCCGGGCACACGCCCCATTCAGCCGCATCCCGCGACC 39


RESULT 3
AX377550/c
LOCUS       AX377550                 39 bp    DNA     linear   PAT 18-MAR-2002
DEFINITION  Sequence 27 from Patent WO0212553.
ACCESSION   AX377550
VERSION     AX377550.1  GI:19573736
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Kappel,A., Polakowski,T., Pignot,M., Windhab,N., Behrensdorf,H. and
            Muth,J.
  TITLE     Method for detecting mutations in nucleotide sequences
  JOURNAL   Patent: WO 0212553-A 27 14-FEB-2002;
            Nanogen Recognomics GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .39
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             6.0%;  Score 37;  DB 1;  Length 39;
  Best Local Similarity   100.0%;  Pred. No. 2.3;
  Matches   37;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        157 CCCGGGCACACGCCCCATCCAGCCGCATCCCGCGACC 193
              |||||||||||||||||||||||||||||||||||||
Db         39 CCCGGGCACACGCCCCATCCAGCCGCATCCCGCGACC 3


RESULT 4
AR007301
LOCUS       AR007301                 36 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 15 from patent US 5750390.
ACCESSION   AR007301
VERSION     AR007301.1  GI:3966785
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 36)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 15 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .36
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             5.9%;  Score 36;  DB 1;  Length 36;
  Best Local Similarity   100.0%;  Pred. No. 2.6;
  Matches   36;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        539 ACCTGAACCGGCACCTGCACACCTGGATCCAGGATA 574
              ||||||||||||||||||||||||||||||||||||
Db          1 ACCTGAACCGGCACCTGCACACCTGGATCCAGGATA 36


RESULT 5
AR007291
LOCUS       AR007291                 33 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 5 from patent US 5750390.
ACCESSION   AR007291
VERSION     AR007291.1  GI:3966775
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 33)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 5 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .33
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             5.4%;  Score 33;  DB 1;  Length 33;
  Best Local Similarity   100.0%;  Pred. No. 4.7;
  Matches   33;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        134 CACCGGGCATCTTCTCCTCCCAGCCCGGGCACA 166
              |||||||||||||||||||||||||||||||||
Db          1 CACCGGGCATCTTCTCCTCCCAGCCCGGGCACA 33


RESULT 6
AR007294
LOCUS       AR007294                 28 bp    DNA     linear   PAT 04-DEC-1998
```

```
DEFINITION  Sequence 8 from patent US 5750390.
ACCESSION   AR007294
VERSION     AR007294.1  GI:3966778
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 28)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 8 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .28
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             4.6%;  Score 28;  DB 1;  Length 28;
  Best Local Similarity   100.0%;  Pred. No. 12;
  Matches   28;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        271 CCTGTGGTCCACCTGGCCCTCCGCCAAG 298
              ||||||||||||||||||||||||||||
Db          1 CCTGTGGTCCACCTGGCCCTCCGCCAAG 28


RESULT 7
E49819/c
LOCUS       E49819                    27 bp    DNA     linear   PAT 27-AUG-2002
DEFINITION  apoptosis-inhibiting polypeptide, gene and polynucleotide encoding
            it, and composition containing the same.
ACCESSION   E49819
VERSION     E49819.1  GI:22554857
KEYWORDS    JP 2001161372-A/8.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 27)
  AUTHORS   Sibazaki,H. and Kuma,H.
  TITLE     apoptosis-inhibiting polypeptide, gene and polynucleotide encoding
            it, and composition containing the same
  JOURNAL   Patent: JP 2001161372-A 8 19-JUN-2001;
            HISAMITSU PHARMACEUT CO INC
COMMENT     OS   Artificial Sequence
            PN   JP 2001161372-A/8
            PD   19-JUN-2001
            PF   09-DEC-1999 JP 1999350427
            PI   HIROSHI SIBAZAKI,HIDEKAZU KUMA
            PC   C12N15/09,A61K31/711,A61K38/00,A61K48/00,A61P21/04,A61P25/00,
            PC   A61P25/28,
            PC   A61P27/02,A61P43/00,C07K14/47,C12N7/00,C12N15/00,A61K37/02 CC
            FH   Key             Location/Qualifiers.
FEATURES             Location/Qualifiers
     source          1. .27
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             4.1%;  Score 25.4;  DB 1;  Length 27;
  Best Local Similarity   96.3%;  Pred. No. 22;
  Matches   26;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        196 GTCGCCAGGACCTCGCCGCTGCAGACC 222
              ||||||||||||| ||||||||||||||
Db         27 GTCGCCAGGACCGCGCCGCTGCAGACC 1


RESULT 8
E49821/c
LOCUS       E49821                    27 bp    DNA     linear   PAT 27-AUG-2002
DEFINITION  apoptosis-inhibiting polypeptide, gene and polynucleotide encoding
            it, and composition containing the same.
ACCESSION   E49821
VERSION     E49821.1  GI:22554859
KEYWORDS    JP 2001161372-A/10.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 27)
  AUTHORS   Sibazaki,H. and Kuma,H.
  TITLE     apoptosis-inhibiting polypeptide, gene and polynucleotide encoding
            it, and composition containing the same
  JOURNAL   Patent: JP 2001161372-A 10 19-JUN-2001;
            HISAMITSU PHARMACEUT CO INC
COMMENT     OS   Artificial Sequence
            PN   JP 2001161372-A/10
            PD   19-JUN-2001
            PF   09-DEC-1999 JP 1999350427
            PI   HIROSHI SIBAZAKI,HIDEKAZU KUMA
            PC   C12N15/09,A61K31/711,A61K38/00,A61K48/00,A61P21/04,A61P25/00,
            PC   A61P25/28,
            PC   A61P27/02,A61P43/00,C07K14/47,C12N7/00,C12N15/00,A61K37/02 CC
            FH   Key             Location/Qualifiers.
FEATURES             Location/Qualifiers
     source          1. .27
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             4.1%;  Score 25.4;  DB 1;  Length 27;
  Best Local Similarity   96.3%;  Pred. No. 22;
  Matches   26;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        334 TTCGCCGAGATGTCCAGCCAGCTGCAC 360
              |||||||||||| ||||||||||||||
Db         27 TTCGCCGAGATGGCCAGCCAGCTGCAC 1


RESULT 9
BD094984/c
LOCUS       BD094984                  27 bp    DNA     linear   PAT 27-AUG-2002
DEFINITION  Apoptosis-inhibiting polypeptides, genes and polynucleotides
            encoding same, and compositions containing them.
ACCESSION   BD094984
VERSION     BD094984.1  GI:22640572
KEYWORDS    WO 0142459-A/8.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 27)
  AUTHORS   Shibazaki,F. and Kuma,H.
  TITLE     Apoptosis-inhibiting polypeptides, genes and polynucleotides
            encoding same, and compositions containing them
  JOURNAL   Patent: WO 0142459-A 8 14-JUN-2001;
            HISAMITSU PHARMACEUTICAL CO INC,FUTOSHI SHIBAZAKI,HIDEKAZU KUMA
COMMENT     OS   Artificial Sequence
            PN   WO 0142459-A/8
            PD   14-JUN-2001
            PF   07-DEC-2000 WO 2000JP008667
            PR   09-DEC-1999 JP 99P   350427
            PI   FUTOSHI SHIBAZAKI,HIDEKAZU KUMA
            PC   C12N15/12,C07K14/82,C12N15/18,A61K38/17,A61K31/711,A61K48/00,
            PC   A61P43/00,
            PC   A61P25/28,A61P21/04,A61P9/10,A61P1/16,A61P27/02 CC
            Apoptosis-inhibiting polypeptides, genes and polynucleotides  CC
                 encoding
            CC   same, and compositions containing them
            FH   Key             Location/Qualifiers
            FT   source          1. .27
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .27
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"
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  Query Match             4.1%;  Score 25.4;  DB 1;  Length 27;
  Best Local Similarity   96.3%;  Pred. No. 22;
  Matches   26;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        196 GTCGCCAGGACCTCGCCGCTGCAGACC 222
              ||||||||||||| ||||||||||||||
Db         27 GTCGCCAGGACCGCGCCGCTGCAGACC 1


RESULT 10
BD094986/c
LOCUS       BD094986                  27 bp    DNA     linear   PAT 27-AUG-2002
DEFINITION  Apoptosis-inhibiting polypeptides, genes and polynucleotides
            encoding same, and compositions containing them.
ACCESSION   BD094986
VERSION     BD094986.1  GI:22640574
KEYWORDS    WO 0142459-A/10.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 27)
  AUTHORS   Shibazaki,F. and Kuma,H.
  TITLE     Apoptosis-inhibiting polypeptides, genes and polynucleotides
            encoding same, and compositions containing them
  JOURNAL   Patent: WO 0142459-A 10 14-JUN-2001;
            HISAMITSU PHARMACEUTICAL CO INC,FUTOSHI SHIBAZAKI,HIDEKAZU KUMA
COMMENT     OS   Artificial Sequence
            PN   WO 0142459-A/10
            PD   14-JUN-2001
            PF   07-DEC-2000 WO 2000JP008667
            PR   09-DEC-1999 JP 99P   350427
            PI   FUTOSHI SHIBAZAKI,HIDEKAZU KUMA
            PC   C12N15/12,C07K14/82,C12N15/18,A61K38/17,A61K31/711,A61K48/00,
            PC   A61P43/00,
            PC   A61P25/28,A61P21/04,A61P9/10,A61P1/16,A61P27/02 CC
            Apoptosis-inhibiting polypeptides, genes and polynucleotides  CC
                encoding
            CC   same, and compositions containing them
            FH   Key             Location/Qualifiers
            FT   source          1. .27
            FT                   /organism='Artificial Sequence'.
FEATURES              Location/Qualifiers
     source           1. .27
                      /organism="synthetic construct"
                      /mol_type="genomic DNA"
                      /db_xref="taxon:32630"

  Query Match             4.1%;  Score 25.4;  DB 1;  Length 27;
  Best Local Similarity   96.3%;  Pred. No. 22;
  Matches   26;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        334 TTCGCCGAGATGTCCAGCCAGCTGCAC 360
              ||||||||||||| ||||||||||||||
Db         27 TTCGCCGAGATGGCCAGCCAGCTGCAC 1


RESULT 11
AX477733
LOCUS       AX477733                  26 bp    DNA     linear   PAT 12-AUG-2002
DEFINITION  Sequence 15 from Patent WO0240530.
ACCESSION   AX477733
VERSION     AX477733.1  GI:22216880
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Fesik,S.W., Petros,A.M., Yoon,H. and Nettesheim,D.G.
  TITLE     Mutant bcl-2 proteins and uses thereof
  JOURNAL   Patent: WO 0240530-A 15 23-MAY-2002;
            ABBOTT LABORATORIES (US)
FEATURES              Location/Qualifiers
     source           1. .26
                      /organism="synthetic construct"
                      /mol_type="unassigned DNA"
                      /db_xref="taxon:32630"
                      /note="Primer"

  Query Match             4.0%;  Score 24.4;  DB 1;  Length 26;
  Best Local Similarity   96.2%;  Pred. No. 26;
  Matches   25;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        317 GCCGCTACCGCGGCGACTTCGCCGAG 342
              ||||||||||| ||||||||||||||
Db          1 GCCGCTACCGCCGCGACTTCGCCGAG 26


RESULT 12
AX477734/c
LOCUS       AX477734                  26 bp    DNA     linear   PAT 12-AUG-2002
DEFINITION  Sequence 16 from Patent WO0240530.
ACCESSION   AX477734
VERSION     AX477734.1  GI:22216881
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Fesik,S.W., Petros,A.M., Yoon,H. and Nettesheim,D.G.
  TITLE     Mutant bcl-2 proteins and uses thereof
  JOURNAL   Patent: WO 0240530-A 16 23-MAY-2002;
            ABBOTT LABORATORIES (US)
FEATURES              Location/Qualifiers
     source           1. .26
                      /organism="synthetic construct"
                      /mol_type="unassigned DNA"
                      /db_xref="taxon:32630"
                      /note="Primer"

  Query Match             4.0%;  Score 24.4;  DB 1;  Length 26;
  Best Local Similarity   96.2%;  Pred. No. 26;
  Matches   25;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        317 GCCGCTACCGCGGCGACTTCGCCGAG 342
              ||||||||||| ||||||||||||||
Db         26 GCCGCTACCGCCGCGACTTCGCCGAG 1


RESULT 13
AX113808
LOCUS       AX113808                  24 bp    DNA     linear   PAT 01-MAY-2001
DEFINITION  Sequence 54 from Patent WO0127256.
ACCESSION   AX113808
VERSION     AX113808.1  GI:13939974
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Wu,L., Carey,M.F. and Belldegrun,A.S.
  TITLE     Chimeric transcriptional regulatory element and methods for
            prostate-targeted gene expression
  JOURNAL   Patent: WO 0127256-A 54 19-APR-2001;
            The Regents of the University of California System (US)
FEATURES              Location/Qualifiers
     source           1. .24
                      /organism="synthetic construct"
                      /mol_type="unassigned DNA"
                      /db_xref="taxon:32630"
                      /note="SYNTHETIC OLIGONUCLEOTIDE"

  Query Match             3.9%;  Score 24;  DB 1;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 25;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        450 CTTTGAGTTCGGTGGGGTCATGTG 473
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                    ||||||||||||||||||||||||
Db          1 CTTTGAGTTCGGTGGGGTCATGTG 24


RESULT 14
AX427162
LOCUS       AX427162                  24 bp    DNA     linear   PAT 18-JUN-2002
DEFINITION  Sequence 11 from Patent WO0210374.
ACCESSION   AX427162
VERSION     AX427162.1  GI:21530543
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Lin,S.L., Chuong,C.M. and Widelitz,R.B.
  TITLE     Gene silencing using mrna-cdna hybrids
  JOURNAL   Patent: WO 0210374-A 11 07-FEB-2002;
            UNIVERSITY OF SOUTHERN CALIFORNIA (US)
FEATURES             Location/Qualifiers
     source          1. .24
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="bc12 primer"

  Query Match             3.9%;  Score 24;  DB 1;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 25;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        527 GGATGACTGAGTACCTGAACCGGC 550
              ||||||||||||||||||||||||
Db          1 GGATGACTGAGTACCTGAACCGGC 24


RESULT 15
AX537133/c
LOCUS       AX537133                  24 bp    RNA     linear   PAT 22-NOV-2002
DEFINITION  Sequence 2 from Patent WO02055692.
ACCESSION   AX537133
VERSION     AX537133.1  GI:25263577
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Kreutzer,R., Limmer,S., Vornlocher,H.P., Hadwiger,P., Geick,A.,
            Ocker,M., Herold,C. and Schuppan,D.
  TITLE     Method for inhibiting the expression of a target gene and
            medicament for treating a tumor disease
  JOURNAL   Patent: WO 02055692-A 2 18-JUL-2002;
            Ribopharma AG (DE)
FEATURES             Location/Qualifiers
     source          1. .24
                     /organism="synthetic construct"
                     /mol_type="unassigned RNA"
                     /db_xref="taxon:32630"
                     /note="Beschreibung der kunstlichen Sequenz:
                     Antisinn-Strang einer zu einer Sequenz des humanen
                     Bcl-2-Gens komplement ren dsRNA"

  Query Match             3.9%;  Score 24;  DB 1;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 25;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        199 GCCAGGACCTCGCCGCTGCAGACC 222
              ||||||||||||||||||||||||
Db         24 GCCAGGACCTCGCCGCTGCAGACC 1


RESULT 16
BD144227/c
LOCUS       BD144227                  24 bp    DNA     linear   PAT 17-JAN-2003
DEFINITION  Method for examining allergic diseases.
ACCESSION   BD144227
VERSION     BD144227.1  GI:27849985
KEYWORDS    JP 2002119281-A/15.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 24)
  AUTHORS   Sugita,Y., Hashida,R., Ogawa,K., Fujishima,T. and Tsujimoto,K.
  TITLE     Method for examining allergic diseases
  JOURNAL   Patent: JP 2002119281-A 15 23-APR-2002;
            GENOX RESEARCH INC,THE DIRECTOR OF NATIONAL CHILDREN'S HOSPITAL
COMMENT     OS   Artificial Sequence
            PN   JP 2002119281-A/15
            PD   23-APR-2002
            PF   11-OCT-2000 JP 2000311193
            PI   YUJI SUGITA,RYOICHI HASHIDA,KAORU OGAWA,TOMOKO FUJISHIMA,KOZO
            PI   TSUJIMOTO
            PC   C12N15/09,A01K67/027,A61K31/713,A61K45/00,A61K48/00,A61P37/08,
            PC   C12N5/10,
            PC   C12Q1/02,C12Q1/68,G01N33/15,G01N33/50//(C12N15/09,C12R1:91),
              (C12N15/00,C12R1:91),(C12N5/00,C12R1:91)
            CC   Description of Artificial Sequence:an artificially synthesized

            CC           TaqMan
            CC   probe sequence
            CC   Label FAM (6-carboxy-fluorescein)
            CC   Label TAMRA (6-carboxy-N,N,N',N'-tetramethylrhodamine) FH
            Key            Location/Qualifiers
            FT   misc_binding    (1)
            FT   misc_binding    (24).
FEATURES             Location/Qualifiers
     source          1. .24
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             3.9%;  Score 24;  DB 1;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 25;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        425 TGAACTGGGGGAGGATTGTGGCCT 448
              ||||||||||||||||||||||||
Db         24 TGAACTGGGGGAGGATTGTGGCCT 1


RESULT 17
AR007290
LOCUS       AR007290                  23 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 4 from patent US 5750390.
ACCESSION   AR007290
VERSION     AR007290.1  GI:3966774
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 23)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 4 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .23
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.7%;  Score 23;  DB 1;  Length 23;
  Best Local Similarity   100.0%;  Pred. No. 30;
  Matches   23;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         64 AAGCTGTCGCAGAGGGGCTACGA 86
              |||||||||||||||||||||||
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```
Db          1 AAGCTGTCGCAGAGGGGCTACGA 23


RESULT 18
AR053546/c
LOCUS       AR053546                  24 bp    DNA     linear   PAT 29-SEP-1999
DEFINITION  Sequence 11 from patent US 5834248.
ACCESSION   AR053546
VERSION     AR053546.1  GI:5978408
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 24)
  AUTHORS   Falb,D.
  TITLE     Compositions and methods using rchd534, a gene uregulated by shear
            stress
  JOURNAL   Patent: US 5834248-A 11 10-NOV-1998;
FEATURES             Location/Qualifiers
     source          1. .24
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 37;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 19
AR065873/c
LOCUS       AR065873                  24 bp    DNA     linear   PAT 29-SEP-1999
DEFINITION  Sequence 11 from patent US 5849578.
ACCESSION   AR065873
VERSION     AR065873.1  GI:5996089
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 24)
  AUTHORS   Falb,D.A.
  TITLE     Compositions and methods for the treatment and diagnosis of
            cardiovascular using RCHD528 as a target
  JOURNAL   Patent: US 5849578-A 11 15-DEC-1998;
FEATURES             Location/Qualifiers
     source          1. .24
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 37;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 20
AR080355/c
LOCUS       AR080355                  24 bp    DNA     linear   PAT 31-AUG-2000
DEFINITION  Sequence 11 from patent US 5968770.
ACCESSION   AR080355
VERSION     AR080355.1  GI:10007090
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 24)
  AUTHORS   Falb,D.A. and Gimbrone,M.A. Jr.
  TITLE     Compositions and methods for the treatment and diagnosis of
            cardiovascular disease using rchd523 as a target
  JOURNAL   Patent: US 5968770-A 11 19-OCT-1999;
FEATURES             Location/Qualifiers
     source          1. .24
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 37;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 21
AR148310/c
LOCUS       AR148310                  24 bp    DNA     linear   PAT 08-AUG-2001
DEFINITION  Sequence 11 from patent US 6225084.
ACCESSION   AR148310
VERSION     AR148310.1  GI:15112400
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 24)
  AUTHORS   Falb,D.A. and Gimbrone,M.A. Jr.
  TITLE     Compositions and methods for the treatment and diagnosis of
            cardiovascular disease using rchd534 as a target
  JOURNAL   Patent: US 6225084-A 11 01-MAY-2001;
FEATURES             Location/Qualifiers
     source          1. .24
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 37;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 22
AR007292
LOCUS       AR007292                  22 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 6 from patent US 5750390.
ACCESSION   AR007292
VERSION     AR007292.1  GI:3966776
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 22)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 6 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .22
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.6%;  Score 22;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 36;
  Matches   22;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 CGCCAGGACCTCGCCGCTGCAG 219
              ||||||||||||||||||||||
Db          1 CGCCAGGACCTCGCCGCTGCAG 22
```

```
RESULT 23
BD247889
LOCUS       BD247889                  22 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Antisence oligonucleotide containing universal and/or homonymous
            base.
ACCESSION   BD247889
VERSION     BD247889.1  GI:33057659
KEYWORDS    JP 2002541825-A/21.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 22)
  AUTHORS   Brown,B.D. and Riley,T.A.
  TITLE     Antisence oligonucleotide containing universal and/or homonymous
  JOURNAL   Patent: JP 2002541825-A 21 10-DEC-2002;
            OASIS BIOSCIENCES INC
COMMENT     OS   Artificial Sequence
            PN   JP 2002541825-A/21
            PD   10-DEC-2002
            PF   07-APR-2000 JP 2000611732
            PR   08-APR-1999 US    60/128377
            PI   BOB D BROWN,TIMOTHY A RILEY
            PC   C12N15/09,C12N9/00,C12N15/00
            CC   Synthetic oligonucleotide primers
            FH   Key             Location/Qualifiers
            FT   source          1. .22
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .22
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             3.6%;  Score 22;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 36;
  Matches   22;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        264 GGTGCCACCTGTGGTCCACCTG 285
              ||||||||||||||||||||||
Db          1 GGTGCCACCTGTGGTCCACCTG 22


RESULT 24
AR279805
LOCUS       AR279805                  22 bp    DNA     linear   PAT 10-APR-2003
DEFINITION  Sequence 51 from patent US 6518017.
ACCESSION   AR279805
VERSION     AR279805.1  GI:29714950
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 22)
  AUTHORS   Riley,T.A., Brown,B.D. and Arnold,L.J.
  TITLE     Combinatorial antisense library
  JOURNAL   Patent: US 6518017-A 51 11-FEB-2003;
FEATURES             Location/Qualifiers
     source          1. .22
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             3.6%;  Score 22;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 36;
  Matches   22;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        264 GGTGCCACCTGTGGTCCACCTG 285
              ||||||||||||||||||||||
Db          1 GGTGCCACCTGTGGTCCACCTG 22


RESULT 25
AX537132
LOCUS       AX537132                  22 bp    RNA     linear   PAT 22-NOV-2002
DEFINITION  Sequence 1 from Patent WO02055692.
ACCESSION   AX537132
VERSION     AX537132.1  GI:25263575
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Kreutzer,R., Limmer,S., Vornlocher,H.P., Hadwiger,P., Geick,A.,
            Ocker,M., Herold,C. and Schuppan,D.
  TITLE     Method for inhibiting the expression of a target gene and
            medicament for treating a tumor disease
  JOURNAL   Patent: WO 02055692-A 1 18-JUL-2002;
            Ribopharma AG (DE)
FEATURES             Location/Qualifiers
     source          1. .22
                     /organism="synthetic construct"
                     /mol_type="unassigned RNA"
                     /db_xref="taxon:32630"
                     /note="Sinn-Strang einer zu einer Sequenz des humanen
                     Bcl-2-Gens komplement ren dsRNA"

  Query Match             3.6%;  Score 22;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 36;
  Matches   22;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        201 CAGGACCTCGCCGCTGCAGACC 222
              ||||||||||||||||||||||
Db          1 CAGGACCTCGCCGCTGCAGACC 22


RESULT 26
BD076457
LOCUS       BD076457                  22 bp    DNA     linear   PAT 27-AUG-2002
DEFINITION  Combined antisense library.
ACCESSION   BD076457
VERSION     BD076457.1  GI:22622060
KEYWORDS    JP 2001519170-A/51.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 22)
  AUTHORS   Riley,T.A., Brown,B.D. and Arnold,L.J.
  TITLE     Combined antisense library
  JOURNAL   Patent: JP 2001519170-A 51 23-OCT-2001;
            OASIS BIOSCIENCES INC
COMMENT     OS   Artificial Sequence
            PN   JP 2001519170-A/51
            PD   23-OCT-2001
            PF   28-SEP-1998 JP 2000515030
            PR   02-OCT-1997 US    60/060673,18-AUG-1998 US    09/136080 PI
            TIMOTHY A RILEY,BOB D BROWN,LYLE J ARNOLD
            PC   C12Q1/68,C07H21/04,C12N15/09,C12P19/34,C12N15/00 CC
            synthetic oligonucleotide
            FH   Key             Location/Qualifiers
            FT   source          1. .22
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .22
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             3.6%;  Score 22;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 36;
  Matches   22;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        264 GGTGCCACCTGTGGTCCACCTG 285
              ||||||||||||||||||||||
Db          1 GGTGCCACCTGTGGTCCACCTG 22
```

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RESULT 27
A82351
LOCUS       A82351                    20 bp    DNA     linear   PAT 21-JAN-2000
DEFINITION  Sequence 1 from Patent WO9856905.
ACCESSION   A82351
VERSION     A82351.1  GI:6732124
KEYWORDS    .
SOURCE      unidentified
  ORGANISM  unidentified
            unclassified.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Fabbro,D. and Altmann,K.
  TITLE     OLIGONUCLEOTIDE DERIVATIVES
  JOURNAL   Patent: WO 9856905-A 1 17-DEC-1998;
            NOVARTIS ERFINDUNGEN VERWALTUN (AT); NOVARTIS AG (CH)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="unidentified"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32644"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        422 GGGTGAACTGGGGGAGGATT 441
              ||||||||||||||||||||
Db          1 GGGTGAACTGGGGGAGGATT 20


RESULT 28
A82353/c
LOCUS       A82353                    20 bp    DNA     linear   PAT 21-JAN-2000
DEFINITION  Sequence 3 from Patent WO9856905.
ACCESSION   A82353
VERSION     A82353.1  GI:6732126
KEYWORDS    .
SOURCE      unidentified
  ORGANISM  unidentified
            unclassified.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Fabbro,D. and Altmann,K.
  TITLE     OLIGONUCLEOTIDE DERIVATIVES
  JOURNAL   Patent: WO 9856905-A 3 17-DEC-1998;
            NOVARTIS ERFINDUNGEN VERWALTUN (AT); NOVARTIS AG (CH)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="unidentified"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32644"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        422 GGGTGAACTGGGGGAGGATT 441
              ||||||||||||||||||||
Db         20 GGGTGAACTGGGGGAGGATT 1


RESULT 29
AR021161
LOCUS       AR021161                  20 bp    DNA     linear   PAT 05-DEC-1998
DEFINITION  Sequence 13 from patent US 5789389.
ACCESSION   AR021161
VERSION     AR021161.1  GI:3975776
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Tarasewicz,D.G., Schott,B., Holzmayer,T.A. and Roninson,I.B.
  TITLE     BCL2 derived genetic elements associated with sensitivity to
            chemotherapeutic drugs
  JOURNAL   Patent: US 5789389-A 13 04-AUG-1998;
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        442 GTGGCCTTCTTTGAGTTCGG 461
              ||||||||||||||||||||
Db          1 GTGGCCTTCTTTGAGTTCGG 20


RESULT 30
AR052605/c
LOCUS       AR052605                  20 bp    DNA     linear   PAT 29-SEP-1999
DEFINITION  Sequence 3 from patent US 5831066.
ACCESSION   AR052605
VERSION     AR052605.1  GI:5975969
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Reed,J.C.
  TITLE     Regulation of bcl-2 gene expression
  JOURNAL   Patent: US 5831066-A 3 03-NOV-1998;
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        577 GGAGGCTGGGTAGGTGCATC 596
              ||||||||||||||||||||
Db         20 GGAGGCTGGGTAGGTGCATC 1


RESULT 31
AR170718
LOCUS       AR170718                  20 bp    DNA     linear   PAT 17-DEC-2001
DEFINITION  Sequence 1 from patent US 6291668.
ACCESSION   AR170718
VERSION     AR170718.1  GI:17908677
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Ziegler,A., Zangemeister-Wittke,U., Fabbro,D. and Altmann,K.-H.
  TITLE     Oligonucleotide derivatives
  JOURNAL   Patent: US 6291668-A 1 18-SEP-2001;
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        422 GGGTGAACTGGGGGAGGATT 441
              ||||||||||||||||||||
Db          1 GGGTGAACTGGGGGAGGATT 20
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RESULT 32
AR170720/c
LOCUS       AR170720                  20 bp    DNA     linear   PAT 17-DEC-2001
DEFINITION  Sequence 3 from patent US 6291668.
ACCESSION   AR170720
VERSION     AR170720.1  GI:17908679
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Ziegler,A., Zangemeister-Wittke,U., Fabbro,D. and Altmann,K.-H.
  TITLE     Oligonucleotide derivatives
  JOURNAL   Patent: US 6291668-A 3 18-SEP-2001;
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        422 GGGTGAACTGGGGGAGGATT 441
              ||||||||||||||||||||
Db         20 GGGTGAACTGGGGGAGGATT 1


RESULT 33
I96084/c
LOCUS       I96084                    20 bp    DNA     linear   PAT 01-DEC-1998
DEFINITION  Sequence 3 from patent US 5734033.
ACCESSION   I96084
VERSION     I96084.1  GI:3940554
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Reed,J.
  TITLE     Antisense oligonucleotides inhibiting human bcl-2 gene expression
  JOURNAL   Patent: US 5734033-A 3 31-MAR-1998;
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        577 GGAGGCTGGGTAGGTGCATC 596
              ||||||||||||||||||||
Db         20 GGAGGCTGGGTAGGTGCATC 1


RESULT 34
AR223313
LOCUS       AR223313                  20 bp    DNA     linear   PAT 26-SEP-2002
DEFINITION  Sequence 1 from patent US 6436393.
ACCESSION   AR223313
VERSION     AR223313.1  GI:23331464
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Bilbao,G., Curiel,D.T. and Contreras,J.L.
  TITLE     Adenoviral vector encoding anti-apoptotic Bcl-2 gene and uses
            thereof
  JOURNAL   Patent: US 6436393-A 1 20-AUG-2002;
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         86 AGTGGGATGCGGGAGATGTG 105
              ||||||||||||||||||||
Db          1 AGTGGGATGCGGGAGATGTG 20


RESULT 35
AX224971
LOCUS       AX224971                  20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 125 from Patent WO0161030.
ACCESSION   AX224971
VERSION     AX224971.1  GI:15555044
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 125 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis; National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        234 CGGCGCCGCCGCGGGGCCTG 253
              ||||||||||||||||||||
Db          1 CGGCGCCGCCGCGGGGCCTG 20


RESULT 36
AX224972
LOCUS       AX224972                  20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 126 from Patent WO0161030.
ACCESSION   AX224972
VERSION     AX224972.1  GI:15555045
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 126 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis; National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
```

```
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        235 GGCGCCGCCGCGGGGCCTGC 254
              ||||||||||||||||||||
Db          1 GGCGCCGCCGCGGGGCCTGC 20


RESULT 37
AX224973
LOCUS       AX224973                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 127 from Patent WO0161030.
ACCESSION   AX224973
VERSION     AX224973.1  GI:15555046
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 127 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        236 GCGCCGCCGCGGGGCCTGCG 255
              ||||||||||||||||||||
Db          1 GCGCCGCCGCGGGGCCTGCG 20


RESULT 38
AX224974
LOCUS       AX224974                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 128 from Patent WO0161030.
ACCESSION   AX224974
VERSION     AX224974.1  GI:15555047
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 128 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        232 CCCGGCGCCGCCGCGGGGCC 251
              ||||||||||||||||||||
Db          1 CCCGGCGCCGCCGCGGGGCC 20


RESULT 39
AX224975
LOCUS       AX224975                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 129 from Patent WO0161030.
ACCESSION   AX224975
VERSION     AX224975.1  GI:15555048
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 129 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        237 CGCCGCCGCGGGGCCTGCGC 256
              ||||||||||||||||||||
Db          1 CGCCGCCGCGGGGCCTGCGC 20


RESULT 40
AX224976
LOCUS       AX224976                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 130 from Patent WO0161030.
ACCESSION   AX224976
VERSION     AX224976.1  GI:15555049
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 130 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        233 CCGGCGCCGCCGCGGGGCCT 252
              ||||||||||||||||||||
Db          1 CCGGCGCCGCCGCGGGGCCT 20


RESULT 41
AX224977
LOCUS       AX224977                 20 bp    DNA     linear   PAT 10-SEP-2001
```

```
DEFINITION  Sequence 131 from Patent WO0161030.
ACCESSION   AX224977
VERSION     AX224977.1  GI:15555050
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 131 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        239 CCGCCGCGGGGCCTGCGCTC 258
              ||||||||||||||||||||
Db          1 CCGCCGCGGGGCCTGCGCTC 20


RESULT 42
AX224978
LOCUS       AX224978                  20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 132 from Patent WO0161030.
ACCESSION   AX224978
VERSION     AX224978.1  GI:15555051
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 132 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        241 GCCGCGGGGCCTGCGCTCAG 260
              ||||||||||||||||||||
Db          1 GCCGCGGGGCCTGCGCTCAG 20


RESULT 43
AX224979
LOCUS       AX224979                  20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 133 from Patent WO0161030.
ACCESSION   AX224979
VERSION     AX224979.1  GI:15555052
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 133 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        240 CGCCGCGGGGCCTGCGCTCA 259
              ||||||||||||||||||||
Db          1 CGCCGCGGGGCCTGCGCTCA 20


RESULT 44
AX224980
LOCUS       AX224980                  20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 134 from Patent WO0161030.
ACCESSION   AX224980
VERSION     AX224980.1  GI:15555053
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 134 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        246 GGGGCCTGCGCTCAGCCCGG 265
              ||||||||||||||||||||
Db          1 GGGGCCTGCGCTCAGCCCGG 20


RESULT 45
AX224981
LOCUS       AX224981                  20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 135 from Patent WO0161030.
ACCESSION   AX224981
VERSION     AX224981.1  GI:15555054
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
```

```
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 135 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         94 GCGGGAGATGTGGGCGCCGC 113
              ||||||||||||||||||||
Db          1 GCGGGAGATGTGGGCGCCGC 20


RESULT 46
AX224982
LOCUS       AX224982                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 136 from Patent WO0161030.
ACCESSION   AX224982
VERSION     AX224982.1  GI:15555055
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 136 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         95 CGGGAGATGTGGGCGCCGCG 114
              ||||||||||||||||||||
Db          1 CGGGAGATGTGGGCGCCGCG 20


RESULT 47
AX224983
LOCUS       AX224983                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 137 from Patent WO0161030.
ACCESSION   AX224983
VERSION     AX224983.1  GI:15555056
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 137 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         96 GGGAGATGTGGGCGCCGCGC 115
              ||||||||||||||||||||
Db          1 GGGAGATGTGGGCGCCGCGC 20


RESULT 48
AX224984
LOCUS       AX224984                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 138 from Patent WO0161030.
ACCESSION   AX224984
VERSION     AX224984.1  GI:15555057
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 138 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        242 CCGCGGGGCCTGCGCTCAGC 261
              ||||||||||||||||||||
Db          1 CCGCGGGGCCTGCGCTCAGC 20


RESULT 49
AX224985
LOCUS       AX224985                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 139 from Patent WO0161030.
ACCESSION   AX224985
VERSION     AX224985.1  GI:15555058
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 139 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
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                    /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        243 CGCGGGGCCTGCGCTCAGCC 262
              ||||||||||||||||||||
Db          1 CGCGGGGCCTGCGCTCAGCC 20


RESULT 50
AX224986
LOCUS       AX224986                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 140 from Patent WO0161030.
ACCESSION   AX224986
VERSION     AX224986.1  GI:15555059
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 140 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        244 GCGGGGCCTGCGCTCAGCCC 263
              ||||||||||||||||||||
Db          1 GCGGGGCCTGCGCTCAGCCC 20


RESULT 51
AX224987
LOCUS       AX224987                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 141 from Patent WO0161030.
ACCESSION   AX224987
VERSION     AX224987.1  GI:15555060
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 141 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;

Qy        245 CGGGGCCTGCGCTCAGCCCG 264
              ||||||||||||||||||||
Db          1 CGGGGCCTGCGCTCAGCCCG 20


RESULT 52
AX224990
LOCUS       AX224990                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 144 from Patent WO0161030.
ACCESSION   AX224990
VERSION     AX224990.1  GI:15555063
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 144 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         97 GGAGATGTGGGCGCCGCGCC 116
              ||||||||||||||||||||
Db          1 GGAGATGTGGGCGCCGCGCC 20


RESULT 53
BD080526
LOCUS       BD080526                 20 bp    RNA     linear   PAT 27-AUG-2002
DEFINITION  Ribonucleoside-derivative and method for preparing the same.
ACCESSION   BD080526
VERSION     BD080526.1  GI:22626129
KEYWORDS    JP 2001515087-A/5.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Pitsch,S., Weiss,P.A. and Jenny,L.
  TITLE     Ribonucleoside-derivative and method for preparing the same
  JOURNAL   Patent: JP 2001515087-A 5 18-SEP-2001;
            STEFAN PITSCH,PATRICK A WEISS,LUZI JENNY
COMMENT     OS   Artificial Sequence
            PN   JP 2001515087-A/5
            PD   18-SEP-2001
            PF   17-AUG-1998 JP 2000509723
            PR   18-AUG-1997 CH      1931/97
            PI   STEFAN PITSCH,PATRICK A WEISS,LUZI JENNY
            PC   C07H19/06,C07F7/18,C07H19/16,C07H21/02,C07H23/00 CC
            Description of Artificial Sequence:synthetic polynucleotide FH
            Key             Location/Qualifiers
            FT   source          1. .20
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="synthetic construct"
                     /mol_type="genomic RNA"
                     /db_xref="taxon:32630"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
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  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        422 GGGTGAACTGGGGGAGGATT 441
              ||||||||||||||||||||
Db          1 GGGTGAACTGGGGGAGGATT 20


RESULT 54
BD144225/c
LOCUS       BD144225                 20 bp    DNA     linear   PAT 17-JAN-2003
DEFINITION  Method for examining allergic diseases.
ACCESSION   BD144225
VERSION     BD144225.1  GI:27849983
KEYWORDS    JP 2002119281-A/13.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Sugita,Y., Hashida,R., Ogawa,K., Fujishima,T. and Tsujimoto,K.
  TITLE     Method for examining allergic diseases
  JOURNAL   Patent: JP 2002119281-A 13 23-APR-2002;
            GENOX RESEARCH INC,THE DIRECTOR OF NATIONAL CHILDREN'S HOSPITAL
COMMENT     OS   Artificial Sequence
            PN   JP 2002119281-A/13
            PD   23-APR-2002
            PF   11-OCT-2000 JP 2000311193
            PI   YUJI SUGITA,RYOICHI HASHIDA,KAORU OGAWA,TOMOKO FUJISHIMA,KOZO
            PI   TSUJIMOTO
            PC   C12N15/09,A01K67/027,A61K31/713,A61K45/00,A61K48/00,A61P37/08,
            PC   C12N5/10,
            PC   C12Q1/02,C12Q1/68,G01N33/15,G01N33/50//(C12N15/09,C12R1:91),
            PC   (C12N5/10,C12R1:91),(C12Q1/02,C12R1:91),C12N15/00,C12N5/00, PC
              (C12N15/00,C12R1:91),(C12N5/00,C12R1:91)
            CC   Description of Artificial Sequence:an artificially synthesized

            CC            primer
            CC   sequence
            FH   Key             Location/Qualifiers
            FT   source          1. .20
            FT                   /organism='Artificial Sequence'.
FEATURES            Location/Qualifiers
     source         1. .20
                    /organism="synthetic construct"
                    /mol_type="genomic DNA"
                    /db_xref="taxon:32630"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        453 TGAGTTCGGTGGGGTCATGT 472
              ||||||||||||||||||||
Db         20 TGAGTTCGGTGGGGTCATGT 1


RESULT 55
BD144226
LOCUS       BD144226                 20 bp    DNA     linear   PAT 17-JAN-2003
DEFINITION  Method for examining allergic diseases.
ACCESSION   BD144226
VERSION     BD144226.1  GI:27849984
KEYWORDS    JP 2002119281-A/14.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Sugita,Y., Hashida,R., Ogawa,K., Fujishima,T. and Tsujimoto,K.
  TITLE     Method for examining allergic diseases
  JOURNAL   Patent: JP 2002119281-A 14 23-APR-2002;
            GENOX RESEARCH INC,THE DIRECTOR OF NATIONAL CHILDREN'S HOSPITAL
COMMENT     OS   Artificial Sequence
            PN   JP 2002119281-A/14
            PD   23-APR-2002
            PF   11-OCT-2000 JP 2000311193
            PI   YUJI SUGITA,RYOICHI HASHIDA,KAORU OGAWA,TOMOKO FUJISHIMA,KOZO
            PI   TSUJIMOTO
            PC   C12N15/09,A01K67/027,A61K31/713,A61K45/00,A61K48/00,A61P37/08,
            PC   C12N5/10,
            PC   C12Q1/02,C12Q1/68,G01N33/15,G01N33/50//(C12N15/09,C12R1:91),
            PC   (C12N5/10,C12R1:91),(C12Q1/02,C12R1:91),C12N15/00,C12N5/00, PC
              (C12N15/00,C12R1:91),(C12N5/00,C12R1:91)
            CC   Description of Artificial Sequence:an artificially synthesized

            CC            primer
            CC   sequence
            FH   Key             Location/Qualifiers
            FT   source          1. .20
            FT                   /organism='Artificial Sequence'.
FEATURES            Location/Qualifiers
     source         1. .20
                    /organism="synthetic construct"
                    /mol_type="genomic DNA"
                    /db_xref="taxon:32630"

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 50;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        401 TGGAGGAGCTCTTCAGGGAC 420
              ||||||||||||||||||||
Db          1 TGGAGGAGCTCTTCAGGGAC 20


RESULT 56
AR007297
LOCUS       AR007297                 19 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 11 from patent US 5750390.
ACCESSION   AR007297
VERSION     AR007297.1  GI:3966781
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 19)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 11 12-MAY-1998;
FEATURES            Location/Qualifiers
     source         1. .19
                    /organism="unknown"
                    /mol_type="unassigned DNA"

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        349 AGCCAGCTGCACCTGACGC 367
              |||||||||||||||||||
Db          1 AGCCAGCTGCACCTGACGC 19


RESULT 57
AR007298
LOCUS       AR007298                 19 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 12 from patent US 5750390.
ACCESSION   AR007298
VERSION     AR007298.1  GI:3966782
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 19)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
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            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 12 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .19
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        378 GCGGGGACGCTTTGCCACG 396
              |||||||||||||||||||
Db          1 GCGGGGACGCTTTGCCACG 19


RESULT 58
AR007300
LOCUS       AR007300                19 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 14 from patent US 5750390.
ACCESSION   AR007300
VERSION     AR007300.1  GI:3966784
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 19)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 14 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .19
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        514 AACATCGCCCTGTGGATGA 532
              |||||||||||||||||||
Db          1 AACATCGCCCTGTGGATGA 19


RESULT 59
AX224989
LOCUS       AX224989                20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 143 from Patent WO0161030.
ACCESSION   AX224989
VERSION     AX224989.1  GI:15555062
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 143 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.1%;  Score 19;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 62;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        154 CAGCCCGGGCACACGCCCC 172
              |||||||||||||||||||
Db          2 CAGCCCGGGCACACGCCCC 20


RESULT 60
AX224988
LOCUS       AX224988                20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 142 from Patent WO0161030.
ACCESSION   AX224988
VERSION     AX224988.1  GI:15555061
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 142 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             3.0%;  Score 18.4;  DB 1;  Length 20;
  Best Local Similarity   95.0%;  Pred. No. 71;
  Matches   19;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        152 CCCAGCCCGGGCACACGCCC 171
              | |||||||||||||||||||
Db          1 CGCAGCCCGGGCACACGCCC 20


RESULT 61
AR052619/c
LOCUS       AR052619                18 bp    DNA     linear   PAT 29-SEP-1999
DEFINITION  Sequence 17 from patent US 5831066.
ACCESSION   AR052619
VERSION     AR052619.1  GI:5975983
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Reed,J.C.
  TITLE     Regulation of bcl-2 gene expression
  JOURNAL   Patent: US 5831066-A 17 03-NOV-1998;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 62
AR052624/c
LOCUS       AR052624                18 bp    DNA     linear   PAT 29-SEP-1999
DEFINITION  Sequence 24 from patent US 5831066.
ACCESSION   AR052624
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VERSION     AR052624.1  GI:5975988
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Reed,J.C.
  TITLE     Regulation of bcl-2 gene expression
  JOURNAL   Patent: US 5831066-A 24 03-NOV-1998;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 63
AR116926/c
LOCUS       AR116926                 18 bp    DNA     linear   PAT 16-MAY-2001
DEFINITION  Sequence 1 from patent US 6140051.
ACCESSION   AR116926
VERSION     AR116926.1  GI:14097832
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Brown,L.R. and Xu,C.
  TITLE     Fluorescent dibenzazole derivatives and methods related thereto
  JOURNAL   Patent: US 6140051-A 1 31-OCT-2000;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 64
AR140496/c
LOCUS       AR140496                 18 bp    DNA     linear   PAT 16-JUN-2001
DEFINITION  Sequence 55 from patent US 6207646.
ACCESSION   AR140496
VERSION     AR140496.1  GI:14482992
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M., Kline,J., Klinman,D. and Steinberg,A.D.
  TITLE     Immunostimulatory nucleic acid molecules
  JOURNAL   Patent: US 6207646-A 55 27-MAR-2001;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 65
AR146347/c
LOCUS       AR146347                 18 bp    DNA     linear   PAT 08-AUG-2001
DEFINITION  Sequence 59 from patent US 6218371.
ACCESSION   AR146347
VERSION     AR146347.1  GI:15109536
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Weiner,G.
  TITLE     Methods and products for stimulating the immune system using
            immunotherapeutic oligonucleotides and cytokines
  JOURNAL   Patent: US 6218371-A 59 17-APR-2001;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 66
AR146392/c
LOCUS       AR146392                 18 bp    DNA     linear   PAT 08-AUG-2001
DEFINITION  Sequence 104 from patent US 6218371.
ACCESSION   AR146392
VERSION     AR146392.1  GI:15109581
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Weiner,G.
  TITLE     Methods and products for stimulating the immune system using
            immunotherapeutic oligonucleotides and cytokines
  JOURNAL   Patent: US 6218371-A 104 17-APR-2001;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 67
AR154716/c
LOCUS       AR154716                 18 bp    DNA     linear   PAT 08-AUG-2001
DEFINITION  Sequence 45 from patent US 6239116.
ACCESSION   AR154716
VERSION     AR154716.1  GI:15122769
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
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            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Kline,J.N.
  TITLE     Immunostimulatory nucleic acid molecules
  JOURNAL   Patent: US 6239116-A 45 29-MAY-2001;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 68
AR167448/c
LOCUS       AR167448                 18 bp    DNA     linear   PAT 17-DEC-2001
DEFINITION  Sequence 14 from patent US 6287591.
ACCESSION   AR167448
VERSION     AR167448.1  GI:17903228
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Semple,S.C., Klimuk,S.K., Harasym,T., Hope,M.J., Ansell,S.M.,
            Cullis,P., Scherrer,P. and Debeyer,D.
  TITLE     Charged therapeutic agents encapsulated in lipid particles
            containing four lipid components
  JOURNAL   Patent: US 6287591-A 14 11-SEP-2001;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 69
BD228692/c
LOCUS       BD228692                 18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Methods and adjuvants for stimulating mucosal immunity.
ACCESSION   BD228692
VERSION     BD228692.1  GI:33038462
KEYWORDS    JP 2002526425-A/21.
SOURCE      unidentified
  ORGANISM  unidentified
            unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Raz,E., Horner,A.A. and Carson,D.A.
  TITLE     Methods and adjuvants for stimulating mucosal immunity
  JOURNAL   Patent: JP 2002526425-A 21 20-AUG-2002;
            THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
COMMENT     OS   Unidentified
            PN   JP 2002526425-A/21
            PD   20-AUG-2002
            PF   15-SEP-1999 JP 2000573397
            PR   05-OCT-1998 US    09/167039
            PI   EYAL RAZ,ANTHONY A HORNER,DENNIS A CARSON
            PC   A61K39/39,A61K31/7088,A61K31/7105,A61K31/711,A61P11/00 PC
            ,A61P27/14,A61P37/04,
            PC   C12N15/09,G01N33/15,G01N33/50//C12N5/10,G01N33/531,C12N15/00,
            PC   C12N5/00
            CC   18-base, fully phosphorothioated oligonucleotide FH   Key
                   Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Unidentified'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unidentified"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32644"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 70
BD247888/c
LOCUS       BD247888                 18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Antisence oligonucleotide containing universal and/or homonymous
            base.
ACCESSION   BD247888
VERSION     BD247888.1  GI:33057658
KEYWORDS    JP 2002541825-A/20.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Brown,B.D. and Riley,T.A.
  TITLE     Antisence oligonucleotide containing universal and/or homonymous
  JOURNAL   Patent: JP 2002541825-A 20 10-DEC-2002;
            OASIS BIOSCIENCES INC
COMMENT     OS   Artificial Sequence
            PN   JP 2002541825-A/20
            PD   10-DEC-2002
            PF   07-APR-2000 JP 2000611732
            PR   08-APR-1999 US    60/128377
            PI   BOB D BROWN,TIMOTHY A RILEY
            PC   C12N15/09,C12N9/00,C12N15/00
            CC   Synthetic oligonucleotide primers
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 71
BD251268/c
LOCUS       BD251268                 18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Enhancement of Neisseria antigen bactericidal activity using CG
            motif-containing oligonucleotide.
ACCESSION   BD251268
VERSION     BD251268.1  GI:33061038
KEYWORDS    JP 2002537353-A/4.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
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```
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Grandi,G., Rappuoli,R., Giuliani,M.M. and Pizza,M.
  TITLE     Enhancement of Neisseria antigen bactericidal activity using CG
            motif-containing oligonucleotide
  JOURNAL   Patent: JP 2002537353-A 4 05-NOV-2002;
            CHIRON SPA
COMMENT     OS   Artificial Sequence
            PN   JP 2002537353-A/4
            PD   05-NOV-2002
            PF   09-FEB-2000 JP 2000600685
            PR   26-FEB-1999 US    60/121792
            PI   GUIDO GRANDI,RINO RAPPUOLI,MARZIA MONICA GIULIANI,MARIAGRAZIA
            PI   PIZZA
            PC   A61K39/095,A61K31/7088,A61K39/39,A61P31/04//C07K14/22,C12N15/
            PC   09,C12N15/00
            CC   oligonucleotide adjuvant
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 72
BD261111/c
LOCUS       BD261111                  18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Methods and products for stimulating the immune system using
            immunotherapeutic oligonucleotides and cytokines.
ACCESSION   BD261111
VERSION     BD261111.1  GI:33070881
KEYWORDS    JP 2002510644-A/59.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Weiner,G.
  TITLE     Methods and products for stimulating the immune system using
            immunotherapeutic oligonucleotides and cytokines
  JOURNAL   Patent: JP 2002510644-A 59 09-APR-2002;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT     OS   Artificial Sequence
            PN   JP 2002510644-A/59
            PD   09-APR-2002
            PF   02-APR-1999 JP 2000542030
            PR   03-APR-1998 US    60/080729
            PI   ARTHUR M KRIEG,GEORGE WEINER
            PC   A61K38/00,A61K31/7088,A61K39/00,A61P15/00,A61P35/00,A61P37/04,
            PC   A61K37/02
            CC   Synthetic Sequence
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 73
BD261156/c
LOCUS       BD261156                  18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Methods and products for stimulating the immune system using
            immunotherapeutic oligonucleotides and cytokines.
ACCESSION   BD261156
VERSION     BD261156.1  GI:33070926
KEYWORDS    JP 2002510644-A/104.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Weiner,G.
  TITLE     Methods and products for stimulating the immune system using
            immunotherapeutic oligonucleotides and cytokines
  JOURNAL   Patent: JP 2002510644-A 104 09-APR-2002;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT     OS   Artificial Sequence
            PN   JP 2002510644-A/104
            PD   09-APR-2002
            PF   02-APR-1999 JP 2000542030
            PR   03-APR-1998 US    60/080729
            PI   ARTHUR M KRIEG,GEORGE WEINER
            PC   A61K38/00,A61K31/7088,A61K39/00,A61P15/00,A61P35/00,A61P37/04,
            PC   A61K37/02
            CC   Synthetic Sequence
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 74
BD261272/c
LOCUS       BD261272                  18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Methods and products for inducing mucosal immunity.
ACCESSION   BD261272
VERSION     BD261272.1  GI:33071042
KEYWORDS    JP 2002516294-A/51.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Mccluskie,M.J. and Davis,H.L.
  TITLE     Methods and products for inducing mucosal immunity
  JOURNAL   Patent: JP 2002516294-A 51 04-JUN-2002;
            LOEB HEALTH RESEARCH INSTITUTE AT THE OTTAWA HOSPITAL, CORY
            PHARMACEUTICALS GROUP INC
COMMENT     OS   Artificial Sequence
            PN   JP 2002516294-A/51
            PD   04-JUN-2002
            PF   21-MAY-1999 JP 2000550515
            PR   22-MAY-1998 US    60/086393
            PI   MICHAEL J MCCLUSKIE,HEATHER L DAVIS
            PC
            A61K39/00,A61K9/10,A61K9/16,A61K9/50,A61K9/51,A61K31/70,A61K39/ PC
```

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            39,
            PC   A61P31/00,A61P35/00,A61P37/00
            CC   immunostimulatory synthetic oligonucleotide
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES    :        Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 75
BD261561/c
LOCUS       BD261561                18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Vaccine.
ACCESSION   BD261561
VERSION     BD261561.1  GI:33071329
KEYWORDS    JP 2002542203-A/2.
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Friede,M., Garcon,N. and Hermand,P.
  TITLE     Vaccine
  JOURNAL   Patent: JP 2002542203-A 2 10-DEC-2002;
            SMITHKLINE BEECHAM BIOLOGICALS SA
COMMENT     OS   Homo sapiens (human)
            PN   JP 2002542203-A/2
            PD   10-DEC-2002
            PF   04-APR-2000 JP 2000611936
            PR   19-APR-1999 GB    9908885.8,29-APR-1999 US    09/301829 PI
            MARTIN FRIEDE,NATHALIE GARCON,PHILIPPE HERMAND PC
            A61K39/39,A61K31/7088,A61K39/00,A61K39/00,A61K39/00,A61K39/02, PC
            A61K39/095,
            PC   A61K39/10,A61K39/102,A61K39/112,A61K39/118,A61K39/12,A61K39/
            PC   145,A61K39/21,
            PC   A61K39/245,A61K39/25,A61K39/29,A61P9/10,A61P25/28,A61P31/04,
            PC   A61P31/12,
            PC   A61P33/00,A61P33/02,A61P35/00,A61P37/04,A61P37/08,A61P43/00,
            PC   C12N15/09,
            PC   C12N15/00
            CC   Vaccine
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Homo sapiens (human)'.
FEATURES            Location/Qualifiers
     source         1. .18
                    /organism="Homo sapiens"
                    /mol_type="genomic DNA"
                    /db_xref="taxon:9606"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 76
BD267876/c
LOCUS       BD267876                18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Methods for the prevention and treatment of parasitic infections
            and related diseases using CPG oligonucleotides.
ACCESSION   BD267876
VERSION     BD267876.1  GI:33077644
KEYWORDS    JP 2002513763-A/49.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Gramzinski,R.A., Krieg,A.M., Davis,H.L. and Hoffman,S.L.
  TITLE     Methods for the prevention and treatment of parasitic infections
            and related diseases using CPG oligonucleotides
  JOURNAL   Patent: JP 2002513763-A 49 14-MAY-2002;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION, OTTAWA CIVIC LOEB RESEARCH
            INSTITUTE, UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY
            OF THE NAVY
COMMENT     OS   Artificial Sequence
            PN   JP 2002513763-A/49
            PD   14-MAY-2002
            PF   06-MAY-1999 JP 2000546780
            PR   06-MAY-1998 US    60/084512
            PI   ROBERT A GRAMZINSKI,ARTHUR M KRIEG,HEATHER L DAVIS,STEPHEN L
            PI   HOFFMAN
            PC   A61K31/711,A61K9/127,A61K38/00,A61K38/22,A61K45/00,A61P31/00,
            PC   A61P33/00//
            PC   C12N15/09,A61K37/02,A61K37/24,C12N15/00
            CC   Synthetic Sequence
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES            Location/Qualifiers
     source         1. .18
                    /organism="synthetic construct"
                    /mol_type="genomic DNA"
                    /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 77
BD267916/c
LOCUS       BD267916                18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Methods for the prevention and treatment of parasitic infections
            and related diseases using CPG oligonucleotides.
ACCESSION   BD267916
VERSION     BD267916.1  GI:33077684
KEYWORDS    JP 2002513763-A/89.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Gramzinski,R.A., Krieg,A.M., Davis,H.L. and Hoffman,S.L.
  TITLE     Methods for the prevention and treatment of parasitic infections
            and related diseases using CPG oligonucleotides
  JOURNAL   Patent: JP 2002513763-A 89 14-MAY-2002;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION, OTTAWA CIVIC LOEB RESEARCH
            INSTITUTE, UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY
            OF THE NAVY
COMMENT     OS   Artificial Sequence
            PN   JP 2002513763-A/89
            PD   14-MAY-2002
            PF   06-MAY-1999 JP 2000546780
            PR   06-MAY-1998 US    60/084512
            PI   ROBERT A GRAMZINSKI,ARTHUR M KRIEG,HEATHER L DAVIS,STEPHEN L
            PI   HOFFMAN
            PC   A61K31/711,A61K9/127,A61K38/00,A61K38/22,A61K45/00,A61P31/00,
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            PC   A61P33/00//
            PC   C12N15/09,A61K37/02,A61K37/24,C12N15/00
            CC   Synthetic Sequence
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 78
BD270778/c
LOCUS       BD270778                 18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Stereoisomer of CpG oligonucleotide and method relating thereto.
ACCESSION   BD270778
VERSION     BD270778.1  GI:33080546
KEYWORDS    JP 2002521489-A/51.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M.
  TITLE     Stereoisomer of CpG oligonucleotide and method relating thereto
  JOURNAL   Patent: JP 2002521489-A 51 16-JUL-2002;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT     OS   Artificial Sequence
            PN   JP 2002521489-A/51
            PD   16-JUL-2002
            PF   27-JUL-1999 JP 2000562385
            PR   27-JUL-1998 US    60/094370
            PI   ARTHUR M KRIEG
            PC   A61K31/711,A61P11/06,A61P17/00,A61P27/02,A61P29/00,A61P31/00,
            PC   A61P31/00,
            PC   A61P35/00,A61P37/04,A61P37/06,A61P37/08
            CC   Synthetic
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 79
I96098/c
LOCUS       I96098                   18 bp    DNA     linear   PAT 01-DEC-1998
DEFINITION  Sequence 17 from patent US 5734033.
ACCESSION   I96098
VERSION     I96098.1  GI:3940568
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Reed,J.
  TITLE     Antisense oligonucleotides inhibiting human bcl-2 gene expression
  JOURNAL   Patent: US 5734033-A 17 31-MAR-1998;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 80
AR213851/c
LOCUS       AR213851                 18 bp    DNA     linear   PAT 25-SEP-2002
DEFINITION  Sequence 51 from patent US 6406705.
ACCESSION   AR213851
VERSION     AR213851.1  GI:23311250
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Davis,H.L., Schorr,J. and Krieg,A.M.
  TITLE     Use of nucleic acids containing unmethylated CpG dinucleotide as an
            adjuvant
  JOURNAL   Patent: US 6406705-A 51 18-JUN-2002;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 81
AR222219/c
LOCUS       AR222219                 18 bp    DNA     linear   PAT 26-SEP-2002
DEFINITION  Sequence 53 from patent US 6429199.
ACCESSION   AR222219
VERSION     AR222219.1  GI:23329684
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Hartmann,G.
  TITLE     Immunostimulatory nucleic acid molecules for activating dendritic
            cells
  JOURNAL   Patent: US 6429199-A 53 06-AUG-2002;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
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                    ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 82
AR279799/c
LOCUS       AR279799                 18 bp    DNA     linear   PAT 10-APR-2003
DEFINITION  Sequence 45 from patent US 6518017.
ACCESSION   AR279799
VERSION     AR279799.1  GI:29714944
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Riley,T.A., Brown,B.D. and Arnold,L.J.
  TITLE     Combinatorial antisense library
  JOURNAL   Patent: US 6518017-A 45 11-FEB-2003;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 83
AR303119/c
LOCUS       AR303119                 18 bp    DNA     linear   PAT 12-JUN-2003
DEFINITION  Sequence 2 from patent US 6544518.
ACCESSION   AR303119
VERSION     AR303119.1  GI:31691791
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Friede,M., Garcon,N., Gerard,C.M.G. and Hermand,P.
  TITLE     Vaccines
  JOURNAL   Patent: US 6544518-A 2 08-APR-2003;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 84
AR309880/c
LOCUS       AR309880                 18 bp    DNA     linear   PAT 12-JUN-2003
DEFINITION  Sequence 2 from patent US 6558670.
ACCESSION   AR309880
VERSION     AR309880.1  GI:31702012
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Friede,M. and Hermand,P.
  TITLE     Vaccine adjuvants
  JOURNAL   Patent: US 6558670-A 2 06-MAY-2003;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 85
AR359625/c
LOCUS       AR359625                 18 bp    DNA     linear   PAT 17-AUG-2003
DEFINITION  Sequence 218 from patent US 6593305.
ACCESSION   AR359625
VERSION     AR359625.1  GI:33766348
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Wright,J.A.
  TITLE     Antitumor antisense sequences directed against R1 and R2 components
            of ribonucleotide reductase
  JOURNAL   Patent: US 6593305-A 218 15-JUL-2003;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 86
AR432468/c
LOCUS       AR432468                 18 bp    DNA     linear   PAT 18-DEC-2003
DEFINITION  Sequence 45 from patent US 6653292.
ACCESSION   AR432468
VERSION     AR432468.1  GI:40194803
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Weiher,G.
  TITLE     Method of treating cancer using immunostimulatory oligonucleotides
  JOURNAL   Patent: US 6653292-A 45 25-NOV-2003;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 87
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AX015198/c
LOCUS       AX015198                 18 bp    DNA     linear   PAT 07-SEP-2000
DEFINITION  Sequence 2 from Patent WO9952549.
ACCESSION   AX015198
VERSION     AX015198.1  GI:10041241
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Friede,M. and Hermand,P.
  TITLE     Adjuvant compositions
  JOURNAL   Patent: WO 9952549-A 2 21-OCT-1999;
            SMITHKLINE BEECHAM BIOLOG (BE); FRIEDE MARTIN (BE); HERMAND
            PHILIPPE (BE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 88
AX020948/c
LOCUS       AX020948                 18 bp    DNA     linear   PAT 07-SEP-2000
DEFINITION  Sequence 25 from Patent WO9933868.
ACCESSION   AX020948
VERSION     AX020948.1  GI:10044612
KEYWORDS    .
SOURCE      unidentified
  ORGANISM  unidentified
            unclassified.
REFERENCE   1
  AUTHORS   Dalemans,W.L. and Gerard,C.M.
  TITLE     Vaccine
  JOURNAL   Patent: WO 9933868-A 25 08-JUL-1999;
            DALEMANS WILFRIED L J (BE); SMITHKLINE BEECHAM BIOLOG (BE); GERARD
            CATHERINE MARIE GHISLAI (BE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unidentified"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32644"
                     /note="synthetic oligonucleotide"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 89
AX020954/c
LOCUS       AX020954                 18 bp    DNA     linear   PAT 07-SEP-2000
DEFINITION  Sequence 4 from Patent WO9933488.
ACCESSION   AX020954
VERSION     AX020954.1  GI:10044617
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Dalemans,W.L., Prieels,J.P. and Laferriere,C.A.
  TITLE     Vaccine
  JOURNAL   Patent: WO 9933488-A 4 08-JUL-1999;
            DALEMANS WILFRIED L J (BE); PRIEELS JEAN PAUL (BE); SMITHKLINE
            BEECHAM BIOLOG (BE); LAFERRIERE CRAIG ANTONY JOSEPH (BE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="This is a synthetic oligonucleotide"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 90
AX040169/c
LOCUS       AX040169                 18 bp    DNA     linear   PAT 18-NOV-2000
DEFINITION  Sequence 2 from Patent WO0062800.
ACCESSION   AX040169
VERSION     AX040169.1  GI:11230119
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Friede,M., Garcon,N. and Hermand,P.
  TITLE     Adjuvant composition comprising saponin and an immunostimulatory o
            ligonucleotide
  JOURNAL   Patent: WO 0062800-A 2 26-OCT-2000;
            SmithKline Beecham Biologicals s.a. (BE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 91
AX040403/c
LOCUS       AX040403                 18 bp    DNA     linear   PAT 18-NOV-2000
DEFINITION  Sequence 2 from Patent WO0062802.
ACCESSION   AX040403
VERSION     AX040403.1  GI:11230215
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Deschamps,M.
  TITLE     Vaccine comprising rsv antigen and cpg oligonucleotide
  JOURNAL   Patent: WO 0062802-A 2 26-OCT-2000;
            SmithKline Beecham Biologicals s.a. (BE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
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/note="Synthetic construct of CpG oligonucleotide"

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
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RESULT 92
AX063576/c
LOCUS AX063576 18 bp DNA linear PAT 24-JAN-2001
DEFINITION Sequence 2 from Patent WO0100231.
ACCESSION AX063576
VERSION AX063576.1 GI:12541300
KEYWORDS .
SOURCE synthetic construct
ORGANISM synthetic construct
artificial sequences.
REFERENCE 1
AUTHORS Cohen,J., Garcon,N. and Voss,G.
TITLE Vaccines
JOURNAL Patent: WO 0100231-A 2 04-JAN-2001;
SMITHKLINE BEECHAM BIOLOGICALS S.A. (BE)
FEATURES Location/Qualifiers
source 1. .18
/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/note="oligonucleotide"

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
```

RESULT 93
AX081353/c
LOCUS AX081353 18 bp DNA linear PAT 27-FEB-2001
DEFINITION Sequence 32 from Patent WO0108707.
ACCESSION AX081353
VERSION AX081353.1 GI:13170195
KEYWORDS .
SOURCE synthetic construct
ORGANISM synthetic construct
artificial sequences.
REFERENCE 1
AUTHORS Uhlmann,E., Greiner,B., Unger,E., Gothe,G. and Schwerdel,M.
TITLE Conjugates and methods for the production thereof, and their use for transporting molecules via biological membranes
JOURNAL Patent: WO 0108707-A 32 08-FEB-2001;
Aventis Pharma Deutschland GmbH (DE)
FEATURES Location/Qualifiers
source 1. .18
/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/note="Oligonucleotide"

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
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RESULT 94
AX083693
LOCUS AX083693 18 bp DNA linear PAT 28-FEB-2001
DEFINITION Sequence 7 from Patent WO0110468.
ACCESSION AX083693
VERSION AX083693.1 GI:13185421
KEYWORDS .
SOURCE synthetic construct
ORGANISM synthetic construct
artificial sequences.
REFERENCE 1
AUTHORS Papisov,M.I.
TITLE Drug-carrier complexes and methods of use thereof
JOURNAL Patent: WO 0110468-A 7 15-FEB-2001;
THE GENERAL HOSPITAL CORPORATION (US)
FEATURES Location/Qualifiers
source 1. .18
/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/note="Synthetic Oligonucleotide"

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db          1 ATGGCGCACGCTGGGAGA 18
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RESULT 95
AX088930/c
LOCUS AX088930 18 bp DNA linear PAT 17-MAR-2001
DEFINITION Sequence 2 from Patent WO0100232.
ACCESSION AX088930
VERSION AX088930.1 GI:13397688
KEYWORDS .
SOURCE synthetic construct
ORGANISM synthetic construct
artificial sequences.
REFERENCE 1
AUTHORS Garcon,N. and Voss,G.
TITLE Vaccine
JOURNAL Patent: WO 0100232-A 2 04-JAN-2001;
SmithKline Beecham Biologics SA (BE)
FEATURES Location/Qualifiers
source 1. .18
/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/note="CpG containing oligonucleotide"

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
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RESULT 96
AX103809/c
LOCUS AX103809 18 bp DNA linear PAT 30-APR-2001
DEFINITION Sequence 1 from Patent WO0122972.
ACCESSION AX103809
VERSION AX103809.1 GI:13920006
KEYWORDS .
SOURCE synthetic construct
ORGANISM synthetic construct
artificial sequences.

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REFERENCE   1
  AUTHORS   Krieg,A.M., Schetter,C. and Vollmer,J.C.
  TITLE     Immunostimulatory nucleic acids
  JOURNAL   Patent: WO 0122972-A 1 05-APR-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US) ; Coley Pharmaceutical
            GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic Sequence"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 97
AX103862/c
LOCUS       AX103862                 18 bp    DNA     linear   PAT 30-APR-2001
DEFINITION  Sequence 54 from Patent WO0122972.
ACCESSION   AX103862
VERSION     AX103862.1  GI:13920059
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Krieg,A.M., Schetter,C. and Vollmer,J.C.
  TITLE     Immunostimulatory nucleic acids
  JOURNAL   Patent: WO 0122972-A 54 05-APR-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US) ; Coley Pharmaceutical
            GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 98
AX103863/c
LOCUS       AX103863                 18 bp    DNA     linear   PAT 30-APR-2001
DEFINITION  Sequence 55 from Patent WO0122972.
ACCESSION   AX103863
VERSION     AX103863.1  GI:13920060
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Krieg,A.M., Schetter,C. and Vollmer,J.C.
  TITLE     Immunostimulatory nucleic acids
  JOURNAL   Patent: WO 0122972-A 55 05-APR-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US) ; Coley Pharmaceutical
            GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 99
AX103899/c
LOCUS       AX103899                 18 bp    DNA     linear   PAT 30-APR-2001
DEFINITION  Sequence 91 from Patent WO0122972.
ACCESSION   AX103899
VERSION     AX103899.1  GI:13920096
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Krieg,A.M., Schetter,C. and Vollmer,J.C.
  TITLE     Immunostimulatory nucleic acids
  JOURNAL   Patent: WO 0122972-A 91 05-APR-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US) ; Coley Pharmaceutical
            GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 100
AX105211/c
LOCUS       AX105211                 18 bp    DNA     linear   PAT 30-APR-2001
DEFINITION  Sequence 110 from Patent WO0122990.
ACCESSION   AX105211
VERSION     AX105211.1  GI:13921361
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Hartmann,G.D., Bratzler,R.L. and Krieg,A.U.
  TITLE     Methods related to immunostimulatory nucleic acid-induced
            interferon
  JOURNAL   Patent: WO 0122990-A 110 05-APR-2001;
            Coley Pharmaceutical Group, Inc. (US) ; UNIVERSITY OF IOWA RESEARCH
            FOUNDATION (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic Oligonucleotide"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
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RESULT 101
AX135635/c
LOCUS       AX135635                18 bp    DNA     linear   PAT 29-MAY-2001
DEFINITION  Sequence 6 from Patent WO0132877.
ACCESSION   AX135635
VERSION     AX135635.1  GI:14271905
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Mackichan,M.L.
  TITLE     Cpg receptor (cpg-r) and methods relating thereto
  JOURNAL   Patent: WO 0132877-A 6 10-MAY-2001;
            CHIRON CORPORATION (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="CpG oligonucleotide"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 102
AX283183/c
LOCUS       AX283183                18 bp    DNA     linear   PAT 20-NOV-2001
DEFINITION  Sequence 21 from Patent WO0179216.
ACCESSION   AX283183
VERSION     AX283183.1  GI:17044064
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Uhlmann,E., Breipohl,G. and Will,D.W.
  TITLE     Polyamide nucleic acid derivatives, agents and methods for
            producing them
  JOURNAL   Patent: WO 0179216-A 21 25-OCT-2001;
            Aventis Pharma Deutschland GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Beschreibung der kuenstlichen
                     Sequenz:Oligonukleotide"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 103
AX283250/c
LOCUS       AX283250                18 bp    DNA     linear   PAT 20-NOV-2001
DEFINITION  Sequence 14 from Patent WO0179249.
ACCESSION   AX283250
VERSION     AX283250.1  GI:17044131
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Uhlmann,E., Breipohl,G. and Will,D.W.
  TITLE     Polyamide nucleic acid derivatives, agents and methods for
            producing the same
  JOURNAL   Patent: WO 0179249-A 14 25-OCT-2001;
            Aventis Pharma Deutschland GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Beschreibung der kuenstlichen Sequenz:
                     Oligonukleotide"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 104
AX355727/c
LOCUS       AX355727                18 bp    DNA     linear   PAT 06-FEB-2002
DEFINITION  Sequence 755 from Patent WO0197843.
ACCESSION   AX355727
VERSION     AX355727.1  GI:18620395
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Weiner,G. and Hartmann,G.
  TITLE     Methods for enhancing antibody-induced cell lysis and treating
            cancer
  JOURNAL   Patent: WO 0197843-A 755 27-DEC-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic oligonucleotide-phosphorothioate
                     backbone"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 105
AX355728/c
LOCUS       AX355728                18 bp    DNA     linear   PAT 06-FEB-2002
DEFINITION  Sequence 756 from Patent WO0197843.
ACCESSION   AX355728
VERSION     AX355728.1  GI:18620396
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Weiner,G. and Hartmann,G.
  TITLE     Methods for enhancing antibody-induced cell lysis and treating
            cancer
```

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  JOURNAL   Patent: WO 0197843-A 756 27-DEC-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic oligonucleotide-phosphodiester backbone"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 106
AX455638/c
LOCUS       AX455638                 18 bp    DNA     linear   PAT 06-JUL-2002
DEFINITION  Sequence 115 from Patent WO0222809.
ACCESSION   AX455638
VERSION     AX455638.1  GI:21714706
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Bauer,S., Lipford,G. and Wagner,H.
  TITLE     Process for high throughput screening of cpg-based
            immuno-agonist/antagonist
  JOURNAL   Patent: WO 0222809-A 115 21-MAR-2002;
            Coley Pharmaceutical GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic oligonucleotide"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 107
AX468484/c
LOCUS       AX468484                 18 bp    DNA     linear   PAT 16-JUL-2002
DEFINITION  Sequence 4 from Patent WO0226209.
ACCESSION   AX468484
VERSION     AX468484.1  GI:21901314
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   O'Hagan,D., Otten,G., Donnelly,J.J., Polo,J.M., Barnett,S.,
            Singh,M., Ulmer,J. and Dubensky,T.W.
  TITLE     Microparticles for delivery of the heterologous nucleic acids
  JOURNAL   Patent: WO 0226209-A 4 04-APR-2002;
            CHIRON CORPORATION (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Artificial sequence is synthesized"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 108
AX497778/c
LOCUS       AX497778                 18 bp    DNA     linear   PAT 26-SEP-2002
DEFINITION  Sequence 2 from Patent WO0232450.
ACCESSION   AX497778
VERSION     AX497778.1  GI:23342931
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Garcon,N., Gerard,C.M. and Stephenne,J.
  TITLE     Vaccines
  JOURNAL   Patent: WO 0232450-A 2 25-APR-2002;
            SMITHKLINE BEECHAM BIOLOGICALS S.A. (BE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic oligonucleotide"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 109
AX513618
LOCUS       AX513618                 18 bp    DNA     linear   PAT 05-OCT-2002
DEFINITION  Sequence 7 from Patent WO0226757.
ACCESSION   AX513618
VERSION     AX513618.1  GI:23559717
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Kandimalla,E.R., Zhao,Q., Yu,D. and Agrawal,S.
  TITLE     Modulation of immunostimulatory activity of immunostimulatory
            oligonucleotide analogs by positional chemical changes
  JOURNAL   Patent: WO 0226757-A 7 04-APR-2002;
            HYBRIDON, INC. (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="synthesis of end-blocked CpG-PS modified
                     oligodeoxynucleotide phosphorothioate"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db          1 ATGGCGCACGCTGGGAGA 18
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RESULT 110
AX513688/c
LOCUS       AX513688                  18 bp    DNA     linear   PAT 05-OCT-2002
DEFINITION  Sequence 77 from Patent WO0226757.
ACCESSION   AX513688
VERSION     AX513688.1  GI:23559808
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Kandimalla,E.R., Zhao,Q., Yu,D. and Agrawal,S.
  TITLE     Modulation of immunostimulatory activity of immunostimulatory
            oligonucleotide analogs by positional chemical changes
  JOURNAL   Patent: WO 0226757-A 77 04-APR-2002;
            HYBRIDON, INC. (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="modified linkage of oligodeoxynucleotide
                     phosphorothioate"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 111
AX513709/c
LOCUS       AX513709                  18 bp    DNA     linear   PAT 05-OCT-2002
DEFINITION  Sequence 98 from Patent WO0226757.
ACCESSION   AX513709
VERSION     AX513709.1  GI:23559832
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Kandimalla,E.R., Zhao,Q., Yu,D. and Agrawal,S.
  TITLE     Modulation of immunostimulatory activity of immunostimulatory
            oligonucleotide analogs by positional chemical changes
  JOURNAL   Patent: WO 0226757-A 98 04-APR-2002;
            HYBRIDON, INC. (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="modified oligodeoxynucleotide phosphorothioate"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 112
AX513710/c
LOCUS       AX513710                  18 bp    DNA     linear   PAT 05-OCT-2002
DEFINITION  Sequence 99 from Patent WO0226757.
ACCESSION   AX513710
VERSION     AX513710.1  GI:23559833
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Kandimalla,E.R., Zhao,Q., Yu,D. and Agrawal,S.
  TITLE     Modulation of immunostimulatory activity of immunostimulatory
            oligonucleotide analogs by positional chemical changes
  JOURNAL   Patent: WO 0226757-A 99 04-APR-2002;
            HYBRIDON, INC. (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="modified oligodeoxynucleotide phosphorothioate"
     modified_base   10
                     /note="g at positions 10 and 14 = 7 deazaguanine"
                     /mod_base=OTHER
     modified_base   14
                     /note="g at positions 10 and 14 = 7 deazaguanine"
                     /mod_base=OTHER

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 113
AX537410/c
LOCUS       AX537410                  18 bp    DNA     linear   PAT 23-NOV-2002
DEFINITION  Sequence 6 from Patent WO02070711.
ACCESSION   AX537410
VERSION     AX537410.1  GI:25269201
KEYWORDS    .
SOURCE      unidentified
  ORGANISM  unidentified
            unclassified.
REFERENCE   1
  AUTHORS   Ashman,C., Crowe,J.S., Ellis,J.H. and Lewis,A.P.
  TITLE     Vaccine
  JOURNAL   Patent: WO 02070711-A 6 12-SEP-2002;
            GLAXO GROUP LIMITED (GB)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unidentified"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32644"
                     /note="synthetic immunostimulatory oligonucleotide"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 114
AX546862/c
LOCUS       AX546862                  18 bp    DNA     linear   PAT 01-MAR-2003
DEFINITION  Sequence 1 from Patent WO02053141.
ACCESSION   AX546862
VERSION     AX546862.1  GI:25812006
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Bratzler,R.L.
```

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  TITLE     Inhibition of angiogenesis by nucleic acids
  JOURNAL   Patent: WO 02053141-A 1 11-JUL-2002;
            Coley Pharmaceutical Group, Inc. (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic Sequence"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 115
AX546915/c
LOCUS       AX546915                18 bp    DNA     linear   PAT 01-MAR-2003
DEFINITION  Sequence 54 from Patent WO02053141.
ACCESSION   AX546915
VERSION     AX546915.1  GI:25812059
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Bratzler,R.L.
  TITLE     Inhibition of angiogenesis by nucleic acids
  JOURNAL   Patent: WO 02053141-A 54 11-JUL-2002;
            Coley Pharmaceutical Group, Inc. (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic Sequence"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 116
AX546916/c
LOCUS       AX546916                18 bp    DNA     linear   PAT 01-MAR-2003
DEFINITION  Sequence 55 from Patent WO02053141.
ACCESSION   AX546916
VERSION     AX546916.1  GI:25812060
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Bratzler,R.L.
  TITLE     Inhibition of angiogenesis by nucleic acids
  JOURNAL   Patent: WO 02053141-A 55 11-JUL-2002;
            Coley Pharmaceutical Group, Inc. (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic Sequence"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 117
AX546952/c
LOCUS       AX546952                18 bp    DNA     linear   PAT 01-MAR-2003
DEFINITION  Sequence 91 from Patent WO02053141.
ACCESSION   AX546952
VERSION     AX546952.1  GI:25812096
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Bratzler,R.L.
  TITLE     Inhibition of angiogenesis by nucleic acids
  JOURNAL   Patent: WO 02053141-A 91 11-JUL-2002;
            Coley Pharmaceutical Group, Inc. (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic Sequence"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 118
AX593887/c
LOCUS       AX593887                18 bp    DNA     linear   PAT 13-FEB-2003
DEFINITION  Sequence 1 from Patent WO02069369.
ACCESSION   AX593887
VERSION     AX593887.1  GI:28375146
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Schetter,C. and Vollmer,J.
  TITLE     Cpg-like nucleic acids and methods of use thereof
  JOURNAL   Patent: WO 02069369-A 1 06-SEP-2002;
            Coley Pharmaceutical Group, Ltd (BM)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic oligonucleotide"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 119
AX593888/c
LOCUS       AX593888                18 bp    DNA     linear   PAT 13-FEB-2003
```

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DEFINITION  Sequence 2 from Patent WO02069369.
ACCESSION   AX593888
VERSION     AX593888.1  GI:28375147
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Schetter,C. and Vollmer,J.
  TITLE     Cpg-like nucleic acids and methods of use thereof
  JOURNAL   Patent: WO 02069369-A 2 06-SEP-2002;
            Coley Pharmaceutical Group, Ltd (BM)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic oligonucleotide"
     modified_base   2
                     /mod_base=m5c
     modified_base   4. .6
                     /mod_base=m5c
     modified_base   9
                     /mod_base=m5c
     modified_base   13
                     /mod_base=m5c
     modified_base   15. .16
                     /mod_base=m5c

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 120
AX671088/c
LOCUS       AX671088                  18 bp    DNA     linear   PAT 27-MAR-2003
DEFINITION  Sequence 1 from Patent WO03004512.
ACCESSION   AX671088
VERSION     AX671088.1  GI:29329553
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Sinha,N., Zedalis,W.E. and Miranda,G.K.
  TITLE     Activators for oligonucleotide synthesis
  JOURNAL   Patent: WO 03004512-A 1 16-JAN-2003;
            Avecia Biotechnology, Inc. (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Sequence prepared in Example 4"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 121
AX786560/c
LOCUS       AX786560                  18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Sequence 51 from Patent WO03030934.
ACCESSION   AX786560
VERSION     AX786560.1  GI:32953981
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Babiuk,L.A. and Hecker,R.
  TITLE     Cpg formulations and related methods
  JOURNAL   Patent: WO 03030934-A 51 17-APR-2003;
            QIAGEN GmbH (DE) ; University of Saskatchewan (CA)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 122
AX797646/c
LOCUS       AX797646                  18 bp    DNA     linear   PAT 04-OCT-2003
DEFINITION  Sequence 9 from Patent WO03039595.
ACCESSION   AX797646
VERSION     AX797646.1  GI:37518074
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Semple,S., Klimuk,S. and Yuan,Z.N.
  TITLE     Mucosal adjuvants comprising an oligonucleotide and a cationic
            lipid
  JOURNAL   Patent: WO 03039595-A 9 15-MAY-2003;
            Inex Pharmaceuticals Corp. (CA)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 123
AX797661/c
LOCUS       AX797661                  18 bp    DNA     linear   PAT 04-OCT-2003
DEFINITION  Sequence 24 from Patent WO03039595.
ACCESSION   AX797661
VERSION     AX797661.1  GI:37518089
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Semple,S., Klimuk,S. and Yuan,Z.N.
  TITLE     Mucosal adjuvants comprising an oligonucleotide and a cationic
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            lipid
  JOURNAL   Patent: WO 03039595-A 24 15-MAY-2003;
            Inex Pharmaceuticals Corp. (CA)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 124
AX822238
LOCUS       AX822238                 18 bp    DNA     linear   PAT 11-DEC-2003
DEFINITION  Sequence 130 from Patent EP1340818.
ACCESSION   AX822238
VERSION     AX822238.1  GI:39748866
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Adorjan,P., Burger,M., Maier,S., Nimmrich,I., Becker,E., Lesche,R.,
            Rujan,T. and Schmitt,A.
  TITLE     Method and nucleic acids for the analysis of a colon cell
            proliferative disorder
  JOURNAL   Patent: EP 1340818-A 130 03-SEP-2003;
            Epigenomics AG (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        387 CTTTGCCACGGTGGTGGA 404
              ||||||||||||||||||
Db          1 CTTTGCCACGGTGGTGGA 18


RESULT 125
AX825878
LOCUS       AX825878                 18 bp    DNA     linear   PAT 11-DEC-2003
DEFINITION  Sequence 130 from Patent WO03072821.
ACCESSION   AX825878
VERSION     AX825878.1  GI:39751392
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Adorjan,P., Burger,M., Maier,S., Nimmrich,I., Becker,E., Lesche,R.,
            Rujan,T. and Schmitt,A.
  TITLE     Method and nucleic acids for the analysis of a colon cell
            proliferactive disorder
  JOURNAL   Patent: WO 03072821-A 130 04-SEP-2003;
            Epigenomics AG (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        387 CTTTGCCACGGTGGTGGA 404
              ||||||||||||||||||
Db          1 CTTTGCCACGGTGGTGGA 18


RESULT 126
BD009103/c
LOCUS       BD009103                 18 bp    DNA     linear   PAT 31-JAN-2002
DEFINITION  Immunostimulatory nucleic acid molecules.
ACCESSION   BD009103
VERSION     BD009103.1  GI:18637476
KEYWORDS    JP 2001503267-A/55.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Kline,J.N.
  TITLE     Immunostimulatory nucleic acid molecules
  JOURNAL   Patent: JP 2001503267-A 55 13-MAR-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT     OS   Artificial Sequence
            PN   JP 2001503267-A/55
            PD   13-MAR-2001
            PF   30-OCT-1997 JP 1998520784
            PR   30-OCT-1996 US    08/738652
            PI   ARTHUR M KRIEG,JOEL N KLINE
            PC   C07H21/00,C07H21/02,C07H21/04,A61K31/175,A61K31/335,A61K31/47,
            PC   A61K31/70
            CC
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 127
BD069938/c
LOCUS       BD069938                 18 bp    DNA     linear   PAT 27-AUG-2002
DEFINITION  Use of nucleic acids containing unmethylated CPG dinucleotide in
            the treatment of LPS-associated disorders.
ACCESSION   BD069938
VERSION     BD069938.1  GI:22615541
KEYWORDS    JP 2001513776-A/27.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Schwartz,D.A. and Krieg,A.M.
  TITLE     Use of nucleic acids containing unmethylated CPG dinucleotide in
            the treatment of LPS-associated disorders
  JOURNAL   Patent: JP 2001513776-A 27 04-SEP-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT     OS   Artificial Sequence
            PN   JP 2001513776-A/27
            PD   04-SEP-2001
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            PF   25-FEB-1998 JP 1998537810
            PR   28-FEB-1997 US    60/039405
            PI   DAVID A SCHWARTZ,ARTHUR M KRIEG
            PC   A61K49/00,C07H21/02,C07H21/04,A01N43/04
            CC   synthetic oligonucleotide
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 128
BD076451/c
LOCUS       BD076451                 18 bp    DNA     linear   PAT 27-AUG-2002
DEFINITION  Combined antisense library.
ACCESSION   BD076451
VERSION     BD076451.1  GI:22622054
KEYWORDS    JP 2001519170-A/45.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Riley,T.A., Brown,B.D. and Arnold,L.J.
  TITLE     Combined antisense library
  JOURNAL   Patent: JP 2001519170-A 45 23-OCT-2001;
            OASIS BIOSCIENCES INC
COMMENT     OS   Artificial Sequence
            PN   JP 2001519170-A/45
            PD   23-OCT-2001
            PF   28-SEP-1998 JP 2000515030
            PR   02-OCT-1997 US    60/060673,18-AUG-1998 US    09/136080 PI
            TIMOTHY A RILEY,BOB D BROWN,LYLE J ARNOLD
            PC   C12Q1/68,C07H21/04,C12N15/09,C12P19/34,C12N15/00 CC
            synthetic oligonucleotide
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 129
BD080525
LOCUS       BD080525                 18 bp    RNA     linear   PAT 27-AUG-2002
DEFINITION  Ribonucleoside-derivative and method for preparing the same.
ACCESSION   BD080525
VERSION     BD080525.1  GI:22626128
KEYWORDS    JP 2001515087-A/4.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Pitsch,S., Weiss,P.A. and Jenny,L.
  TITLE     Ribonucleoside-derivative and method for preparing the same
  JOURNAL   Patent: JP 2001515087-A 4 18-SEP-2001;
            STEFAN PITSCH,PATRICK A WEISS,LUZI JENNY
COMMENT     OS   Artificial Sequence
            PN   JP 2001515087-A/4
            PD   18-SEP-2001
            PF   17-AUG-1998 JP 2000509723
            PR   18-AUG-1997 CH      1931/97
            PI   STEFAN PITSCH,PATRICK A WEISS,LUZI JENNY
            PC   C07H19/06,C07F7/18,C07H19/16,C07H21/02,C07H23/00 CC
            Description of Artificial Sequence:synthetic polynucleotide FH
            Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic RNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db          1 ATGGCGCACGCTGGGAGA 18


RESULT 130
BD106497/c
LOCUS       BD106497                 18 bp    DNA     linear   PAT 18-SEP-2002
DEFINITION  High efficiency encapsulation of charged therapeutic agents in
            lipid vesicles.
ACCESSION   BD106497
VERSION     BD106497.1  GI:23201315
KEYWORDS    JP 2002501511-A/14.
SOURCE      Chlamydia sp.
  ORGANISM  Chlamydia sp.
            Bacteria; Chlamydiae; Chlamydiales; Chlamydiaceae; Chlamydia.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Semple,S.C., Klimuk,S.K., Harasym,T., Hope,M.J., Ansel,S.M.,
            Cullis,P., Scherrer,P. and Debeyer,D.S.
  TITLE     High efficiency encapsulation of charged therapeutic agents in
            lipid vesicles
  JOURNAL   Patent: JP 2002501511-A 14 15-JAN-2002;
            INEX PHARMACEUTICALS CORP
COMMENT     PN   JP 2002501511-A/14
            PD   15-JAN-2002
            PF   14-MAY-1998 JP 1998548646
            PI   SEAN C SEMPLE,SANDRA K KLIMUK,TROY HARASYM,MICHAEL J HOPE, PI
             STEVEN M ANSELL,
            PI   PIETER CULLIS,PETER SCHERRER,DAN SUITE DEBEYER PC   A61K9/00
            CC   Strandedness: Single;
            CC   Topology: Linear;
            FH   Key             Location/Qualifiers.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="Chlamydia sp."
                     /mol_type="genomic DNA"
                     /db_xref="taxon:35827"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
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RESULT 131
BD187532/c
LOCUS       BD187532                  18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  REGULATION OF bcl-2 GENE EXPRESSION.
ACCESSION   BD187532
VERSION     BD187532.1  GI:32997271
KEYWORDS    JP 2003026609-A/17.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Reed,J.C.
  TITLE     REGULATION OF bcl-2 GENE EXPRESSION
  JOURNAL   Patent: JP 2003026609-A 17 29-JAN-2003;
            John C REED
COMMENT     OS   Artificial Sequence
            PN   JP 2003026609-A/17
            PD   29-JAN-2003
            PF   19-JUN-2002 JP 2002178753
            PR   20-SEP-1993 US    08/124256
            PI   john c reed
            CC   Description of Artificial Sequence: Designed DNA based on bcl-
            CC           2 gene
            FH   Key             Location/Qualifiers.
FEATURES            Location/Qualifiers
     source         1. .18
                    /organism="synthetic construct"
                    /mol_type="genomic DNA"
                    /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 132
BD190420/c
LOCUS       BD190420                  18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Microemulsions with Adsorbed Macromoelecules and Microparticles.
ACCESSION   BD190420
VERSION     BD190420.1  GI:33000159
KEYWORDS    JP 2002537102-A/4.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Barackman,J., Simph,M., Ugozoli,M., Kazazu,J., Donnelly,J.,
            Ott,G.S. and Ohagan,D.
  TITLE     Microemulsions with Adsorbed Macromoelecules and Microparticles
  JOURNAL   Patent: JP 2002537102-A 4 05-NOV-2002;
            Chiron Corporation
COMMENT     OS   Artificial Sequence
            PN   JP 2002537102-A/4
            PD   05-NOV-2002
            PF   09-FEB-2000 JP 2000600618
            PR   29-JUL-1999 US    60/146391,28-OCT-1999 US    60/161997, PR
            26-FEB-1999 US    60/121858
            PI   john barackman,manmohan simph,mildred ugozoli,jina kazazu,john
            .
            PI   donnelly,
            PI   gary s ott,derek ohagan
            CC   Oligonucleotide
            FH   Key             Location/Qualifiers.
FEATURES            Location/Qualifiers
     source         1. .18
                    /organism="synthetic construct"
                    /mol_type="genomic DNA"
                    /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 133
BD192469/c
LOCUS       BD192469                  18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Compositions and methods for the delivery of oligonucleotides via
            the alimentary canal.
ACCESSION   BD192469
VERSION     BD192469.1  GI:33002208
KEYWORDS    JP 2002510319-A/34.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Teng,C.L. and Hardee,G.
  TITLE     Compositions and methods for the delivery of oligonucleotides via
            the alimentary canal
  JOURNAL   Patent: JP 2002510319-A 34 02-APR-2002;
            ISIS PHARMACEUTICALS INC
COMMENT     OS   Artificial Sequence
            PN   JP 2002510319-A/34
            PD   02-APR-2002
            PF   01-JUL-1998 JP 1999507295
            PR   01-JUL-1997 US    08/886829
            PI   CHING LEOU TENG,GREG HARDEE
            PC   C12Q1/68,A61K9/127,A61K48/00,C07H21/04
            CC   Description of Artificial Sequence: Novel Sequence FH   Key
                     Location/Qualifiers.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 134
BD205569/c
LOCUS       BD205569                  18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Method of controlling hematopoiesis by using CpG oligonucleotide.
ACCESSION   BD205569
VERSION     BD205569.1  GI:33015339
KEYWORDS    JP 2002514397-A/59.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Wagner,H. and Lipford,G.
  TITLE     Method of controlling hematopoiesis by using CpG oligonucleotide
  JOURNAL   Patent: JP 2002514397-A 59 21-MAY-2002;
            CORY PHARMACEUTICALS GMBH,CORY PHARMACEUTICALS GROUP INC
COMMENT     OS   Artificial Sequence
            PN   JP 2002514397-A/59
            PD   21-MAY-2002
            PF   14-MAY-1999 JP 2000547969
            PR   14-MAY-1998 US    60/085516,02-FEB-1999 US    09/241653 PI
            HERMANN WAGNER,GRAYSON LIPFORD
            PC   C12N15/09,A61K31/70,A61K39/39,C07H21/04//A61K45/00,C12N15/00
```

```
            CC   Synthetic Sequence
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES              Location/Qualifiers
     source           1. .18
                      /organism="synthetic construct"
                      /mol_type="genomic DNA"
                      /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 135
BD205614/c
LOCUS       BD205614                  18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Method of controlling hematopoiesis by using CpG oligonucleotide.
ACCESSION   BD205614
VERSION     BD205614.1  GI:33015384
KEYWORDS    JP 2002514397-A/104.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Wagner,H. and Lipford,G.
  TITLE     Method of controlling hematopoiesis by using CpG oligonucleotide
  JOURNAL   Patent: JP 2002514397-A 104 21-MAY-2002;
            CORY PHARMACEUTICALS GMBH,CORY PHARMACEUTICALS GROUP INC
COMMENT     OS   Artificial Sequence
            PN   JP 2002514397-A/104
            PD   21-MAY-2002
            PF   14-MAY-1999 JP 2000547969
            PR   14-MAY-1998 US    60/085516,02-FEB-1999 US    09/241653 PI
            HERMANN WAGNER,GRAYSON LIPFORD
            PC   C12N15/09,A61K31/70,A61K39/39,C07H21/04//A61K45/00,C12N15/00
            CC   Synthetic Sequence
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES              Location/Qualifiers
     source           1. .18
                      /organism="synthetic construct"
                      /mol_type="genomic DNA"
                      /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 136
BD222609/c
LOCUS       BD222609                  18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Compositions of CPG and saponin adjuvants and uses thereof.
ACCESSION   BD222609
VERSION     BD222609.1  GI:33032379
KEYWORDS    JP 2002522510-A/1.
SOURCE      Quillaja saponaria
  ORGANISM  Quillaja saponaria
            Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
            Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots;
            rosids; eurosids I; Fabales; Quillajaceae; Quillaja.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Kensil,C.A.
  TITLE     Compositions of CPG and saponin adjuvants and uses thereof
  JOURNAL   Patent: JP 2002522510-A 1 23-JUL-2002;
            AQUILA BIOPHARMACEUTICALS INC
COMMENT     OS   Quillaja saponaria
            PN   JP 2002522510-A/1
            PD   23-JUL-2002
            PF   06-AUG-1999 JP 2000564661
            PR   10-AUG-1998 US    60/095913,08-APR-1999 US    60/128608 PI
            CHARLOTTE A KENSIL
            PC   A61K39/39,A61K39/00,C12N15/09,C12N15/00
            CC   Compositions of CPG and saponin adjuvants and uses thereof FH
             Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Quillaja saponaria'.
FEATURES              Location/Qualifiers
     source           1. .18
                      /organism="Quillaja saponaria"
                      /mol_type="genomic DNA"
                      /db_xref="taxon:32244"

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 137
AX083694/c
LOCUS       AX083694                  19 bp    DNA     linear   PAT 28-FEB-2001
DEFINITION  Sequence 8 from Patent WO0110468.
ACCESSION   AX083694
VERSION     AX083694.1  GI:13185422
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Papisov,M.I.
  TITLE     Drug-carrier complexes and methods of use thereof
  JOURNAL   Patent: WO 0110468-A 8 15-FEB-2001;
            THE GENERAL HOSPITAL CORPORATION (US)
FEATURES              Location/Qualifiers
     source           1. .19
                      /organism="synthetic construct"
                      /mol_type="unassigned DNA"
                      /db_xref="taxon:32630"
                      /note="Synthetic Oligonucleotide~c indicates an RNA base"

  Query Match             2.9%;  Score 18;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 73;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 138
AX083695
LOCUS       AX083695                  19 bp    DNA     linear   PAT 28-FEB-2001
DEFINITION  Sequence 9 from Patent WO0110468.
ACCESSION   AX083695
VERSION     AX083695.1  GI:13185423
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Papisov,M.I.
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  TITLE     Drug-carrier complexes and methods of use thereof
  JOURNAL   Patent: WO 0110468-A 9 15-FEB-2001;
            THE GENERAL HOSPITAL CORPORATION (US)
FEATURES             Location/Qualifiers
     source          1. .19
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic Oligonucleotide~c indicates an RNA base"

  Query Match             2.9%;  Score 18;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 73;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db          1 ATGGCGCACGCTGGGAGA 18


RESULT 139
AX453854
LOCUS       AX453854                 19 bp    RNA     linear   PAT 06-JUL-2002
DEFINITION  Sequence 13 from Patent EP1213351.
ACCESSION   AX453854
VERSION     AX453854.1  GI:21713523
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Taira,K., Warashina,M. and Warashina,T.
  TITLE     Nucleic acid enzymes acquiring an activity for cleaving a target
            rna by recognising another molecule
  JOURNAL   Patent: EP 1213351-A 13 12-JUN-2002;
            National Institute of Advanced Industrial Science and Technology
            (JP)
FEATURES             Location/Qualifiers
     source          1. .19
                     /organism="synthetic construct"
                     /mol_type="unassigned RNA"
                     /db_xref="taxon:32630"
                     /note="part of bcl-2 mRNA as a substrate"

  Query Match             2.9%;  Score 18;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 73;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        190 GACCCGGTCGCCAGGACC 207
              ||||||||||||||||||
Db          2 GACCCGGTCGCCAGGACC 19


RESULT 140
AR182888/c
LOCUS       AR182888                 20 bp    DNA     linear   PAT 20-APR-2002
DEFINITION  Sequence 60 from patent US 6339068.
ACCESSION   AR182888
VERSION     AR182888.1  GI:20226095
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 20)
  AUTHORS   Krieg,A.M., Davis,H.L., Wu,T. and Schorr,J.
  TITLE     Vectors and methods for immunization or therapeutic protocols
  JOURNAL   Patent: US 6339068-A 60 15-JAN-2002;
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 78;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 141
AX103895/c
LOCUS       AX103895                 20 bp    DNA     linear   PAT 30-APR-2001
DEFINITION  Sequence 87 from Patent WO0122972.
ACCESSION   AX103895
VERSION     AX103895.1  GI:13920092
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Krieg,A.M., Schetter,C. and Vollmer,J.C.
  TITLE     Immunostimulatory nucleic acids
  JOURNAL   Patent: WO 0122972-A 87 05-APR-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US) ; Coley Pharmaceutical
            GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 78;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 142
AX355729/c
LOCUS       AX355729                 20 bp    DNA     linear   PAT 06-FEB-2002
DEFINITION  Sequence 757 from Patent WO0197843.
ACCESSION   AX355729
VERSION     AX355729.1  GI:18620397
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Weiner,G. and Hartmann,G.
  TITLE     Methods for enhancing antibody-induced cell lysis and treating
            cancer
  JOURNAL   Patent: WO 0197843-A 757 27-DEC-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic oligonucleotide~chimeric
                     phosphorothioate/phosphodiester backbone with
                     phosphorothioate at 5' and 3' ends"

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 78;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 143
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AX546948/c
LOCUS       AX546948                  20 bp    DNA     linear   PAT 01-MAR-2003
DEFINITION  Sequence 87 from Patent WO02053141.
ACCESSION   AX546948
VERSION     AX546948.1  GI:25812092
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Bratzler,R.L.
  TITLE     Inhibition of angiogenesis by nucleic acids
  JOURNAL   Patent: WO 02053141-A 87 11-JUL-2002;
            Coley Pharmaceutical Group, Inc. (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic Sequence"

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 78;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 144
AR007296
LOCUS       AR007296                  17 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 10 from patent US 5750390.
ACCESSION   AR007296
VERSION     AR007296.1  GI:3966780
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 17)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 10 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .17
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 78;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        284 TGGCCCTCCGCCAAGCC 300
              |||||||||||||||||
Db          1 TGGCCCTCCGCCAAGCC 17


RESULT 145
I96089/c
LOCUS       I96089                    17 bp    DNA     linear   PAT 01-DEC-1998
DEFINITION  Sequence 8 from patent US 5734033.
ACCESSION   I96089
VERSION     I96089.1  GI:3940559
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 17)
  AUTHORS   Reed,J.
  TITLE     Antisense oligonucleotides inhibiting human bcl-2 gene expression
  JOURNAL   Patent: US 5734033-A 8 31-MAR-1998;
FEATURES             Location/Qualifiers
     source          1. .17
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 78;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 GCGCACGCTGGGAGAAC 20
              |||||||||||||||||
Db         17 GCGCACGCTGGGAGAAC 1


RESULT 146
I96090/c
LOCUS       I96090                    17 bp    DNA     linear   PAT 01-DEC-1998
DEFINITION  Sequence 9 from patent US 5734033.
ACCESSION   I96090
VERSION     I96090.1  GI:3940560
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 17)
  AUTHORS   Reed,J.
  TITLE     Antisense oligonucleotides inhibiting human bcl-2 gene expression
  JOURNAL   Patent: US 5734033-A 9 31-MAR-1998;
FEATURES             Location/Qualifiers
     source          1. .17
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 78;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAG 17
              |||||||||||||||||
Db         17 ATGGCGCACGCTGGGAG 1


RESULT 147
AR146360/c
LOCUS       AR146360                  18 bp    DNA     linear   PAT 08-AUG-2001
DEFINITION  Sequence 72 from patent US 6218371.
ACCESSION   AR146360
VERSION     AR146360.1  GI:15109549
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Weiner,G.
  TITLE     Methods and products for stimulating the immune system using
            immunotherapeutic oligonucleotides and cytokines
  JOURNAL   Patent: US 6218371-A 72 17-APR-2001;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 148
AR154743/c
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LOCUS       AR154743                 18 bp    DNA     linear   PAT 08-AUG-2001
DEFINITION  Sequence 72 from patent US 6239116.
ACCESSION   AR154743
VERSION     AR154743.1  GI:15122796
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Kline,J.N.
  TITLE     Immunostimulatory nucleic acid molecules
  JOURNAL   Patent: US 6239116-A 72 29-MAY-2001;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 149
BD261124/c
LOCUS       BD261124                 18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Methods and products for stimulating the immune system using
            immunotherapeutic oligonucleotides and cytokines.
ACCESSION   BD261124
VERSION     BD261124.1  GI:33070894
KEYWORDS    JP 2002510644-A/72.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Weiner,G.
  TITLE     Methods and products for stimulating the immune system using
            immunotherapeutic oligonucleotides and cytokines
  JOURNAL   Patent: JP 2002510644-A 72 09-APR-2002;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT     OS   Artificial Sequence
            PN   JP 2002510644-A/72
            PD   09-APR-2002
            PF   02-APR-1999 JP 2000542030
            PR   03-APR-1998 US    60/080729
            PI   ARTHUR M KRIEG,GEORGE WEINER
            PC   A61K38/00,A61K31/7088,A61K39/00,A61P15/00,A61P35/00,A61P37/04,
            PC   A61K37/02
            CC   Synthetic Sequence
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 150
BD267888/c
LOCUS       BD267888                 18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Methods for the prevention and treatment of parasitic infections
            and related diseases using CPG oligonucleotides.
ACCESSION   BD267888
VERSION     BD267888.1  GI:33077656
KEYWORDS    JP 2002513763-A/61.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Gramzinski,R.A., Krieg,A.M., Davis,H.L. and Hoffman,S.L.
  TITLE     Methods for the prevention and treatment of parasitic infections
            and related diseases using CPG oligonucleotides
  JOURNAL   Patent: JP 2002513763-A 61 14-MAY-2002;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION, OTTAWA CIVIC LOEB RESEARCH
            INSTITUTE, UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY
            OF THE NAVY
COMMENT     OS   Artificial Sequence
            PN   JP 2002513763-A/61
            PD   14-MAY-2002
            PF   06-MAY-1999 JP 2000546780
            PR   06-MAY-1998 US    60/084512
            PI   ROBERT A GRAMZINSKI,ARTHUR M KRIEG,HEATHER L DAVIS,STEPHEN L
            PI   HOFFMAN
            PC   A61K31/711,A61K9/127,A61K38/00,A61K38/22,A61K45/00,A61P31/00,
            PC   A61P33/00//
            PC   C12N15/09,A61K37/02,A61K37/24,C12N15/00
            CC   Synthetic Sequence
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 151
AR222232/c
LOCUS       AR222232                 18 bp    DNA     linear   PAT 26-SEP-2002
DEFINITION  Sequence 66 from patent US 6429199.
ACCESSION   AR222232
VERSION     AR222232.1  GI:23329697
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Hartmann,G.
  TITLE     Immunostimulatory nucleic acid molecules for activating dendritic
            cells
  JOURNAL   Patent: US 6429199-A 66 06-AUG-2002;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1
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RESULT 152
AR432493/c
LOCUS       AR432493                 18 bp    DNA     linear   PAT 18-DEC-2003
DEFINITION  Sequence 72 from patent US 6653292.
ACCESSION   AR432493
VERSION     AR432493.1  GI:40194828
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Weiher,G.
  TITLE     Method of treating cancer using immunostimulatory oligonucleotides
  JOURNAL   Patent: US 6653292-A 72 25-NOV-2003;
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 153
AX103886/c
LOCUS       AX103886                 18 bp    DNA     linear   PAT 30-APR-2001
DEFINITION  Sequence 78 from Patent WO0122972.
ACCESSION   AX103886
VERSION     AX103886.1  GI:13920083
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Krieg,A.M., Schetter,C. and Vollmer,J.C.
  TITLE     Immunostimulatory nucleic acids
  JOURNAL   Patent: WO 0122972-A 78 05-APR-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US) ; Coley Pharmaceutical
            GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCTCGCTGGGAGA 1


RESULT 154
AX103887/c
LOCUS       AX103887                 18 bp    DNA     linear   PAT 30-APR-2001
DEFINITION  Sequence 79 from Patent WO0122972.
ACCESSION   AX103887
VERSION     AX103887.1  GI:13920084
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Krieg,A.M., Schetter,C. and Vollmer,J.C.
  TITLE     Immunostimulatory nucleic acids
  JOURNAL   Patent: WO 0122972-A 79 05-APR-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US) ; Coley Pharmaceutical
            GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 155
AX104214/c
LOCUS       AX104214                 18 bp    DNA     linear   PAT 30-APR-2001
DEFINITION  Sequence 406 from Patent WO0122972.
ACCESSION   AX104214
VERSION     AX104214.1  GI:13920411
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Krieg,A.M., Schetter,C. and Vollmer,J.C.
  TITLE     Immunostimulatory nucleic acids
  JOURNAL   Patent: WO 0122972-A 406 05-APR-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US) ; Coley Pharmaceutical
            GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGTACGCTGGGAGA 1


RESULT 156
AX355722/c
LOCUS       AX355722                 18 bp    DNA     linear   PAT 06-FEB-2002
DEFINITION  Sequence 750 from Patent WO0197843.
ACCESSION   AX355722
VERSION     AX355722.1  GI:18620390
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Weiner,G. and Hartmann,G.
  TITLE     Methods for enhancing antibody-induced cell lysis and treating
            cancer
  JOURNAL   Patent: WO 0197843-A 750 27-DEC-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic oligonucleotide-phosphorothioate
                     backbone"
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Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 96;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCTCGCTGGGAGA 1
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RESULT 157
AX355723/c
LOCUS AX355723 18 bp DNA linear PAT 06-FEB-2002
DEFINITION Sequence 751 from Patent WO0197843.
ACCESSION AX355723
VERSION AX355723.1 GI:18620391
KEYWORDS .
SOURCE synthetic construct
ORGANISM synthetic construct
artificial sequences.
REFERENCE 1
AUTHORS Weiner,G. and Hartmann,G.
TITLE Methods for enhancing antibody-induced cell lysis and treating cancer
JOURNAL Patent: WO 0197843-A 751 27-DEC-2001;
UNIVERSITY OF IOWA RESEARCH FOUNDATION (US)
FEATURES Location/Qualifiers
source 1. .18
/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/note="Synthetic oligonucleotide~phosphorothioate backbone"

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 96;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1
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RESULT 158
AX355725/c
LOCUS AX355725 18 bp DNA linear PAT 06-FEB-2002
DEFINITION Sequence 753 from Patent WO0197843.
ACCESSION AX355725
VERSION AX355725.1 GI:18620393
KEYWORDS .
SOURCE synthetic construct
ORGANISM synthetic construct
artificial sequences.
REFERENCE 1
AUTHORS Weiner,G. and Hartmann,G.
TITLE Methods for enhancing antibody-induced cell lysis and treating cancer
JOURNAL Patent: WO 0197843-A 753 27-DEC-2001;
UNIVERSITY OF IOWA RESEARCH FOUNDATION (US)
FEATURES Location/Qualifiers
source 1. .18
/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/note="Synthetic oligonucleotide~phosphorothioate backbone"

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 96;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy          1 ATGGCGCACGCTGGGAGA 18
              |||||| ||||||||||
Db         18 ATGGCGTACGCTGGGAGA 1
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RESULT 159
AX455636/c
LOCUS AX455636 18 bp DNA linear PAT 06-JUL-2002
DEFINITION Sequence 113 from Patent WO0222809.
ACCESSION AX455636
VERSION AX455636.1 GI:21714704
KEYWORDS .
SOURCE synthetic construct
ORGANISM synthetic construct
artificial sequences.
REFERENCE 1
AUTHORS Bauer,S., Lipford,G. and Wagner,H.
TITLE Process for high throughput screening of cpg-based immuno-agonist/antagonist
JOURNAL Patent: WO 0222809-A 113 21-MAR-2002;
Coley Pharmaceutical GmbH (DE)
FEATURES Location/Qualifiers
source 1. .18
/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/note="Synthetic oligonucleotide"

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 96;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1
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RESULT 160
AX546939/c
LOCUS AX546939 18 bp DNA linear PAT 01-MAR-2003
DEFINITION Sequence 78 from Patent WO02053141.
ACCESSION AX546939
VERSION AX546939.1 GI:25812083
KEYWORDS .
SOURCE synthetic construct
ORGANISM synthetic construct
artificial sequences.
REFERENCE 1
AUTHORS Bratzler,R.L.
TITLE Inhibition of angiogenesis by nucleic acids
JOURNAL Patent: WO 02053141-A 78 11-JUL-2002;
Coley Pharmaceutical Group, Inc. (US)
FEATURES Location/Qualifiers
source 1. .18
/organism="synthetic construct"
/mol_type="unassigned DNA"
/db_xref="taxon:32630"
/note="Synthetic Sequence"

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 96;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCTCGCTGGGAGA 1
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RESULT 161
AX546940/c
LOCUS AX546940 18 bp DNA linear PAT 01-MAR-2003
DEFINITION Sequence 79 from Patent WO02053141.
ACCESSION AX546940
VERSION AX546940.1 GI:25812084
KEYWORDS .
SOURCE synthetic construct

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  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Bratzler,R.L.
  TITLE     Inhibition of angiogenesis by nucleic acids
  JOURNAL   Patent: WO 02053141-A 79 11-JUL-2002;
            Coley Pharmaceutical Group, Inc. (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic Sequence"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 162
AX547267/c
LOCUS       AX547267                  18 bp    DNA     linear   PAT 01-MAR-2003
DEFINITION  Sequence 406 from Patent WO02053141.
ACCESSION   AX547267
VERSION     AX547267.1  GI:25812411
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Bratzler,R.L.
  TITLE     Inhibition of angiogenesis by nucleic acids
  JOURNAL   Patent: WO 02053141-A 406 11-JUL-2002;
            Coley Pharmaceutical Group, Inc. (US)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic Sequence"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              |||||| ||||||||||
Db         18 ATGGCGTACGCTGGGAGA 1


RESULT 163
AX599331
LOCUS       AX599331                  18 bp    DNA     linear   PAT 14-FEB-2003
DEFINITION  Sequence 671 from Patent WO02077272.
ACCESSION   AX599331
VERSION     AX599331.1  GI:28399475
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Berlin,K., Braun,A., Distler,J., Guetig,D., Howe,A., Mueller,J.,
            Olek,A., Piepenbrock,C., Adorjan,P., Grabs,G., Lesche,R., Leu,E.,
            Lewin,A., Lipscher,E., Maier,S., Model,F., Mueller,V., Otto,T.,
            Pelet,C. and Ziebarth,H.
  TITLE     Methods and nucleic acids for the analysis of hematopoietic cell
            proliferative disorders
  JOURNAL   Patent: WO 02077272-A 671 03-OCT-2002;
            Epigenomics AG (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Detection oligonucleotide for BCL2"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         76 AGGGGCTACGAGTGGGAT 93
              ||||| ||||||||||||
Db          1 AGGGGTTACGAGTGGGAT 18


RESULT 164
AX767741
LOCUS       AX767741                  18 bp    DNA     linear   PAT 02-JUL-2003
DEFINITION  Sequence 389 from Patent WO03044226.
ACCESSION   AX767741
VERSION     AX767741.1  GI:32436346
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Burger,M., Caldwell,C., Genc,B., Becker,E., Maier,S. and
            Nimmrich,I.
  TITLE     Method and nucleic acids for the analysis of a lymphoid cell
            proliferative disorder
  JOURNAL   Patent: WO 03044226-A 389 30-MAY-2003;
            Epigenomics AG (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Detection oligonucleotide for BCL2"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         76 AGGGGCTACGAGTGGGAT 93
              ||||| ||||||||||||
Db          1 AGGGGTTACGAGTGGGAT 18


RESULT 165
AX796189
LOCUS       AX796189                  18 bp    DNA     linear   PAT 04-OCT-2003
DEFINITION  Sequence 532 from Patent WO03052135.
ACCESSION   AX796189
VERSION     AX796189.1  GI:37516855
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Burger,M., Field,J.K., Genc,B., Liloglou,T., Lipscher,E., Maier,S.
            and Nimmrich,I.
  TITLE     Method and nucleic acids for the analysis of a lung cell
            proliferative disorder
  JOURNAL   Patent: WO 03052135-A 532 26-JUN-2003;
            Epigenomics AG (DE)
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Detection oligonucleotide for BCL2"
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  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         76 AGGGGCTACGAGTGGGAT 93
              ||||| ||||||||||||
Db          1 AGGGGTTACGAGTGGGAT 18


RESULT 166
BD009126/c
LOCUS       BD009126                 18 bp    DNA     linear   PAT 31-JAN-2002
DEFINITION  Immunostimulatory nucleic acid molecules.
ACCESSION   BD009126
VERSION     BD009126.1  GI:18637499
KEYWORDS    JP 2001503267-A/78.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Krieg,A.M. and Kline,J.N.
  TITLE     Immunostimulatory nucleic acid molecules
  JOURNAL   Patent: JP 2001503267-A 78 13-MAR-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT     OS   Artificial Sequence
            PN   JP 2001503267-A/78
            PD   13-MAR-2001
            PF   30-OCT-1997 JP 1998520784
            PR   30-OCT-1996 US    08/738652
            PI   ARTHUR M KRIEG,JOEL N KLINE
            PC   C07H21/00,C07H21/02,C07H21/04,A61K31/175,A61K31/335,A61K31/47,
            PC   A61K31/70
            CC
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 167
BD069952/c
LOCUS       BD069952                 18 bp    DNA     linear   PAT 27-AUG-2002
DEFINITION  Use of nucleic acids containing unmethylated CPG dinucleotide in
            the treatment of LPS-associated disorders.
ACCESSION   BD069952
VERSION     BD069952.1  GI:22615555
KEYWORDS    JP 2001513776-A/41.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Schwartz,D.A. and Krieg,A.M.
  TITLE     Use of nucleic acids containing unmethylated CPG dinucleotide in
            the treatment of LPS-associated disorders
  JOURNAL   Patent: JP 2001513776-A 41 04-SEP-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT     OS   Artificial Sequence
            PN   JP 2001513776-A/41
            PD   04-SEP-2001
            PF   25-FEB-1998 JP 1998537810
            PR   28-FEB-1997 US    60/039405
            PI   DAVID A SCHWARTZ,ARTHUR M KRIEG
            PC   A61K49/00,C07H21/02,C07H21/04,A01N43/04
            CC   synthetic oligonucleotide
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 168
BD069971/c
LOCUS       BD069971                 18 bp    DNA     linear   PAT 27-AUG-2002
DEFINITION  Use of nucleic acids containing unmethylated CPG dinucleotide in
            the treatment of LPS-associated disorders.
ACCESSION   BD069971
VERSION     BD069971.1  GI:22615574
KEYWORDS    JP 2001513776-A/60.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Schwartz,D.A. and Krieg,A.M.
  TITLE     Use of nucleic acids containing unmethylated CPG dinucleotide in
            the treatment of LPS-associated disorders
  JOURNAL   Patent: JP 2001513776-A 60 04-SEP-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT     OS   Artificial Sequence
            PN   JP 2001513776-A/60
            PD   04-SEP-2001
            PF   25-FEB-1998 JP 1998537810
            PR   28-FEB-1997 US    60/039405
            PI   DAVID A SCHWARTZ,ARTHUR M KRIEG
            PC   A61K49/00,C07H21/02,C07H21/04,A01N43/04
            CC   synthetic oligonucleotide
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCTCGCTGGGAGA 1


RESULT 169
BD205582/c
LOCUS       BD205582                 18 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Method of controlling hematopoiesis by using CpG oligonucleotide.
ACCESSION   BD205582
VERSION     BD205582.1  GI:33015352
KEYWORDS    JP 2002514397-A/72.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
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            artificial sequences.
REFERENCE   1  (bases 1 to 18)
  AUTHORS   Wagner,H. and Lipford,G.
  TITLE     Method of controlling hematopoiesis by using CpG oligonucleotide
  JOURNAL   Patent: JP 2002514397-A 72 21-MAY-2002;
            CORY PHARMACEUTICALS GMBH,CORY PHARMACEUTICALS GROUP INC
COMMENT     OS   Artificial Sequence
            PN   JP 2002514397-A/72
            PD   21-MAY-2002
            PF   14-MAY-1999 JP 2000547969
            PR   14-MAY-1998 US    60/085516,02-FEB-1999 US    09/241653 PI
            HERMANN WAGNER,GRAYSON LIPFORD
            PC   C12N15/09,A61K31/70,A61K39/39,C07H21/04//A61K45/00,C12N15/00
            CC   Synthetic Sequence
            FH   Key             Location/Qualifiers
            FT   source          1. .18
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .18
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 96;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 170
AR007293
LOCUS       AR007293                  16 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 7 from patent US 5750390.
ACCESSION   AR007293
VERSION     AR007293.1  GI:3966777
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 16)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 7 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .16
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.6%;  Score 16;  DB 1;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 90;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        261 CCCGGTGCCACCTGTG 276
              ||||||||||||||||
Db          1 CCCGGTGCCACCTGTG 16


RESULT 171
AR191948/c
LOCUS       AR191948                  17 bp    DNA     linear   PAT 20-APR-2002
DEFINITION  Sequence 7436 from patent US 6346398.
ACCESSION   AR191948
VERSION     AR191948.1  GI:20237913
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 17)
  AUTHORS   Pavco,P., McSwiggen,J., Stinchcomb,D. and Escobedo,J.
  TITLE     Method and reagent for the treatment of diseases or conditions
            related to levels of vascular endothelial growth factor receptor
  JOURNAL   Patent: US 6346398-A 7436 12-FEB-2002;
FEATURES             Location/Qualifiers
     source          1. .17
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.1e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        563 GGATCCAGGATAACGGA 579
              ||||||||||||| |||
Db         17 GGATCCAGGATAAAGGA 1


RESULT 172
AR325841/c
LOCUS       AR325841                  17 bp    RNA     linear   PAT 17-AUG-2003
DEFINITION  Sequence 3243 from patent US 6566127.
ACCESSION   AR325841
VERSION     AR325841.1  GI:33711649
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 17)
  AUTHORS   Pavco,P., McSwiggen,J.A., Stinchcomb,D.T. and Escobedo,J.
  TITLE     Method and reagent for the treatment of diseases or conditions
            related to levels of vascular endothelial growth factor receptor
  JOURNAL   Patent: US 6566127-A 3243 20-MAY-2003;
FEATURES             Location/Qualifiers
     source          1. .17
                     /organism="unknown"
                     /mol_type="unassigned RNA"

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.1e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        563 GGATCCAGGATAACGGA 579
              ||||||||||||| |||
Db         17 GGATCCAGGATAAAGGA 1


RESULT 173
AX224981/c
LOCUS       AX224981                  20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 135 from Patent WO0161030.
ACCESSION   AX224981
VERSION     AX224981.1  GI:15555054
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 135 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.3%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 1.7e+02;
```

```
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        300 CGGCGACGACTTCTCCCGC 318
              |||||  |  ||  ||||||||
Db         19 CGGCGCCCACATCTCCCGC 1


RESULT 174
A89541/c
LOCUS       A89541                    14 bp    DNA     linear   PAT 22-JAN-2000
DEFINITION  Sequence 1689 from Patent WO9833904.
ACCESSION   A89541
VERSION     A89541.1  GI:6738111
KEYWORDS    .
SOURCE      unidentified
  ORGANISM  unidentified
            unclassified.
REFERENCE   1  (bases 1 to 14)
  AUTHORS   Brysch,W. and Schlingensiepen,K.
  TITLE     AN ANTISENSE OLIGONUCLEOTIDE PREPARATION METHOD
  JOURNAL   Patent: WO 9833904-A 1689 06-AUG-1998;
            BIOGNOSTIK GES (DE); BRYSCH WOLFGANG (DE)
FEATURES             Location/Qualifiers
     source          1. .14
                     /organism="unidentified"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32644"

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        385 CGCTTTGCCACGGT 398
              ||||||||||||||
Db         14 CGCTTTGCCACGGT 1


RESULT 175
BD067054/c
LOCUS       BD067054                  14 bp    DNA     linear   PAT 27-AUG-2002
DEFINITION  An antisense oligonucleotide preparation method.
ACCESSION   BD067054
VERSION     BD067054.1  GI:22612657
KEYWORDS    JP 2001511000-A/1689.
SOURCE      unidentified
  ORGANISM  unidentified
            unclassified.
REFERENCE   1  (bases 1 to 14)
  AUTHORS   Schlingensiepen,K.H. and Brysch,W.
  TITLE     An antisense oligonucleotide preparation method
  JOURNAL   Patent: JP 2001511000-A 1689 07-AUG-2001;
            BIOGNOSTIK GESELLSCHAFT FUR BIOMOLEKULARE DIAGNOSTIK MBH
COMMENT     OS   Unknown
            PN   JP 2001511000-A/1689
            PD   07-AUG-2001
            PF   30-JAN-1998 JP 1998532533
            PR   31-JAN-1997 EP   97101531.8
            PI   KARL HERMANN SCHLINGENSIEPEN,WOLFGANG BRYSCH
            PC   C12N15/11,C07H21/04,A61K31/70
            CC   An antisense oligonucleotide preparation method FH   Key
                  Location/Qualifiers
            FT   source          1. .14
            FT                   /organism='Unknown'.
FEATURES             Location/Qualifiers
     source          1. .14
                     /organism="unidentified"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32644"

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        385 CGCTTTGCCACGGT 398
              ||||||||||||||
Db         14 CGCTTTGCCACGGT 1


RESULT 176
AR007301/c
LOCUS       AR007301                  36 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 15 from patent US 5750390.
ACCESSION   AR007301
VERSION     AR007301.1  GI:3966785
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 36)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 15 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .36
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.2%;  Score 13.6;  DB 1;  Length 36;
  Best Local Similarity   67.9%;  Pred. No. 2.1e+02;
  Matches   19;  Conservative    0;  Mismatches    9;  Indels    0;  Gaps    0;

Qy        560 CCTGGATCCAGGATAACGGAGGCTGGGT 587
              ||||||||||||    | |  || || |
Db         33 CCTGGATCCAGGTGTGCAGGTGCCGGTT 6


RESULT 177
AX377552/c
LOCUS       AX377552                  39 bp    DNA     linear   PAT 18-MAR-2002
DEFINITION  Sequence 29 from Patent WO0212553.
ACCESSION   AX377552
VERSION     AX377552.1  GI:19573738
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Kappel,A., Polakowski,T., Pignot,M., Windhab,N., Behrensdorf,H. and
            Muth,J.
  TITLE     Method for detecting mutations in nucleotide sequences
  JOURNAL   Patent: WO 0212553-A 29 14-FEB-2002;
            Nanogen Recognomics GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .39
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.2%;  Score 13.4;  DB 1;  Length 39;
  Best Local Similarity   73.9%;  Pred. No. 2e+02;
  Matches   17;  Conservative    0;  Mismatches    6;  Indels    0;  Gaps    0;

Qy         87 GTGGGATGCGGGAGATGTGGGCG 109
              | |||||||||  ||   |||||
Db         35 GCGGGATGCGGCTGAATGGGGCG 13


RESULT 178
AX224982/c
LOCUS       AX224982                  20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 136 from Patent WO0161030.
ACCESSION   AX224982
VERSION     AX224982.1  GI:15555055
KEYWORDS    .
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SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 136 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.1%;  Score 13.2;  DB 1;  Length 20;
  Best Local Similarity   83.3%;  Pred. No. 2e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        300 CGGCGACGACTTCTCCCG 317
              ||||| | || |||||||
Db         18 CGGCGCCCACATCTCCCG 1


RESULT 179
AR007295
LOCUS       AR007295                  13 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 9 from patent US 5750390.
ACCESSION   AR007295
VERSION     AR007295.1  GI:3966779
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 13)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 9 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .13
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        225 GGCTGCCCCCGGC 237
              |||||||||||||
Db          1 GGCTGCCCCCGGC 13


RESULT 180
AR306720
LOCUS       AR306720                  13 bp    DNA     linear   PAT 12-JUN-2003
DEFINITION  Sequence 5 from patent US 6548657.
ACCESSION   AR306720
VERSION     AR306720.1  GI:31697045
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 13)
  AUTHORS   Burgin,A., Beigelman,L. and Bellon,L.
  TITLE     Method for screening nucleic acid catalysts
  JOURNAL   Patent: US 6548657-A 5 15-APR-2003;
FEATURES             Location/Qualifiers
     source          1. .13
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        365 CGCCCTTCACCGC 377
              |||||||||||||
Db          1 CGCCCTTCACCGC 13


RESULT 181
AR306721
LOCUS       AR306721                  13 bp    DNA     linear   PAT 12-JUN-2003
DEFINITION  Sequence 6 from patent US 6548657.
ACCESSION   AR306721
VERSION     AR306721.1  GI:31697046
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 13)
  AUTHORS   Burgin,A., Beigelman,L. and Bellon,L.
  TITLE     Method for screening nucleic acid catalysts
  JOURNAL   Patent: US 6548657-A 6 15-APR-2003;
FEATURES             Location/Qualifiers
     source          1. .13
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        407 AGCTCTTCAGGGA 419
              |||||||||||||
Db          1 AGCTCTTCAGGGA 13


RESULT 182
AR306723
LOCUS       AR306723                  13 bp    DNA     linear   PAT 12-JUN-2003
DEFINITION  Sequence 8 from patent US 6548657.
ACCESSION   AR306723
VERSION     AR306723.1  GI:31697048
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 13)
  AUTHORS   Burgin,A., Beigelman,L. and Bellon,L.
  TITLE     Method for screening nucleic acid catalysts
  JOURNAL   Patent: US 6548657-A 8 15-APR-2003;
FEATURES             Location/Qualifiers
     source          1. .13
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        533 CTGAGTACCTGAA 545
              |||||||||||||
Db          1 CTGAGTACCTGAA 13


RESULT 183
AR306724
LOCUS       AR306724                  13 bp    DNA     linear   PAT 12-JUN-2003
DEFINITION  Sequence 9 from patent US 6548657.
ACCESSION   AR306724
VERSION     AR306724.1  GI:31697049
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KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 13)
  AUTHORS   Burgin,A., Beigelman,L. and Bellon,L.
  TITLE     Method for screening nucleic acid catalysts
  JOURNAL   Patent: US 6548657-A 9 15-APR-2003;
FEATURES             Location/Qualifiers
     source          1. .13
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        452 TTGAGTTCGGTGG 464
              |||||||||||||
Db          1 TTGAGTTCGGTGG 13


RESULT 184
AR306725
LOCUS       AR306725                  13 bp    DNA     linear   PAT 12-JUN-2003
DEFINITION  Sequence 10 from patent US 6548657.
ACCESSION   AR306725
VERSION     AR306725.1  GI:31697050
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 13)
  AUTHORS   Burgin,A., Beigelman,L. and Bellon,L.
  TITLE     Method for screening nucleic acid catalysts
  JOURNAL   Patent: US 6548657-A 10 15-APR-2003;
FEATURES             Location/Qualifiers
     source          1. .13
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         47 TGAAGTACATCCA 59
              |||||||||||||
Db          1 TGAAGTACATCCA 13


RESULT 185
AR306726
LOCUS       AR306726                  13 bp    DNA     linear   PAT 12-JUN-2003
DEFINITION  Sequence 11 from patent US 6548657.
ACCESSION   AR306726
VERSION     AR306726.1  GI:31697051
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 13)
  AUTHORS   Burgin,A., Beigelman,L. and Bellon,L.
  TITLE     Method for screening nucleic acid catalysts
  JOURNAL   Patent: US 6548657-A 11 15-APR-2003;
FEATURES             Location/Qualifiers
     source          1. .13
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        273 TGTGGTCCACCTG 285
              |||||||||||||
Db          1 TGTGGTCCACCTG 13


RESULT 186
AR306727
LOCUS       AR306727                  13 bp    DNA     linear   PAT 12-JUN-2003
DEFINITION  Sequence 12 from patent US 6548657.
ACCESSION   AR306727
VERSION     AR306727.1  GI:31697052
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 13)
  AUTHORS   Burgin,A., Beigelman,L. and Bellon,L.
  TITLE     Method for screening nucleic acid catalysts
  JOURNAL   Patent: US 6548657-A 12 15-APR-2003;
FEATURES             Location/Qualifiers
     source          1. .13
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        169 CCCCATCCAGCCG 181
              |||||||||||||
Db          1 CCCCATCCAGCCG 13


RESULT 187
AR306728
LOCUS       AR306728                  13 bp    DNA     linear   PAT 12-JUN-2003
DEFINITION  Sequence 13 from patent US 6548657.
ACCESSION   AR306728
VERSION     AR306728.1  GI:31697053
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 13)
  AUTHORS   Burgin,A., Beigelman,L. and Bellon,L.
  TITLE     Method for screening nucleic acid catalysts
  JOURNAL   Patent: US 6548657-A 13 15-APR-2003;
FEATURES             Location/Qualifiers
     source          1. .13
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.3e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        561 CTGGATCCAGGAT 573
              |||||||||||||
Db          1 CTGGATCCAGGAT 13


RESULT 188
AR399378
LOCUS       AR399378                  14 bp    DNA     linear   PAT 18-DEC-2003
DEFINITION  Sequence 13 from patent US 6620595.
ACCESSION   AR399378
VERSION     AR399378.1  GI:40141228
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 14)
  AUTHORS   Cannon,P.M. and Barcova,M.
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  TITLE     Retroviral vectors comprising an enhanced 3' transcription
            termination structure
  JOURNAL   Patent: US 6620595-A 13 16-SEP-2003;
FEATURES             Location/Qualifiers
     source          1. .14
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.1%;  Score 13;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.5e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         57 CCATTATAAGCTG 69
              |||||||||||||
Db          1 CCATTATAAGCTG 13


RESULT 189
AX224971/c
LOCUS       AX224971                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 125 from Patent WO0161030.
ACCESSION   AX224971
VERSION     AX224971.1  GI:15555044
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 125 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.0%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 2.2e+02;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        233 CCGGCGCCGCCGCGGGGCC 251
              | ||| |||| |||| |||
Db         20 CAGGCCCCGCGGCGGCGCC 2


RESULT 190
AX224972/c
LOCUS       AX224972                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 126 from Patent WO0161030.
ACCESSION   AX224972
VERSION     AX224972.1  GI:15555045
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 126 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.0%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 2.2e+02;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        233 CCGGCGCCGCCGCGGGGCC 251
              | ||| |||| |||| |||
Db         19 CAGGCCCCGCGGCGGCGCC 1


RESULT 191
AX224974/c
LOCUS       AX224974                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 128 from Patent WO0161030.
ACCESSION   AX224974
VERSION     AX224974.1  GI:15555047
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 128 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.0%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 2.2e+02;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        235 GGCGCCGCCGCGGGGCCTG 253
              ||| |||| |||| ||| |
Db         20 GGCCCCGCGGCGGCGCCGG 2


RESULT 192
AX224976/c
LOCUS       AX224976                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 130 from Patent WO0161030.
ACCESSION   AX224976
VERSION     AX224976.1  GI:15555049
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 130 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.0%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 2.2e+02;
```

```
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        235 GGCGCCGCCGCGGGGCCTG 253
              ||| |||| |||| ||| |
Db         19 GGCCCCGCGGCGGCGCCGG 1


RESULT 193
AX224983/c
LOCUS       AX224983                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 137 from Patent WO0161030.
ACCESSION   AX224983
VERSION     AX224983.1  GI:15555056
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 137 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.0%;  Score 12.2;  DB 1;  Length 20;
  Best Local Similarity   82.4%;  Pred. No. 2.4e+02;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        300 CGGCGACGACTTCTCCC 316
              ||||| | || ||||||
Db         17 CGGCGCCCACATCTCCC 1


RESULT 194
AR007289
LOCUS       AR007289                 12 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 3 from patent US 5750390.
ACCESSION   AR007289
VERSION     AR007289.1  GI:3966773
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 3 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.5e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         46 ATGAAGTACATC 57
              ||||||||||||
Db          1 ATGAAGTACATC 12


RESULT 195
AR012033/c
LOCUS       AR012033                 12 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 10 from patent US 5763186.
ACCESSION   AR012033
VERSION     AR012033.1  GI:3970023
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Ludtke,D.N., Monahan,J.E. and Unger,J.T.
  TITLE     Use of antisense oligomers in a process for controlling
            contamination in nucleic acid amplification reactions
  JOURNAL   Patent: US 5763186-A 10 09-JUN-1998;
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.5e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        567 CCAGGATAACGG 578
              ||||||||||||
Db         12 CCAGGATAACGG 1


RESULT 196
AR241838/c
LOCUS       AR241838                 12 bp    DNA     linear   PAT 20-DEC-2002
DEFINITION  Sequence 126 from patent US 6472154.
ACCESSION   AR241838
VERSION     AR241838.1  GI:27287650
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Garner,H.R., Wren,J.D., Minna,J.D. and Fondon,J.W. III.
  TITLE     Polymorphic repeats in human genes
  JOURNAL   Patent: US 6472154-A 126 29-OCT-2002;
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.5e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        115 CCCCCGGGGGCC 126
              ||||||||||||
Db         12 CCCCCGGGGGCC 1


RESULT 197
AX084963
LOCUS       AX084963                 12 bp    DNA     linear   PAT 09-MAR-2001
DEFINITION  Sequence 140 from Patent WO0113117.
ACCESSION   AX084963
VERSION     AX084963.1  GI:13275111
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Herath,H.M.
  TITLE     Proteins, genes and their use for diagnosis and treatment of breast
            cancer
  JOURNAL   Patent: WO 0113117-A 140 22-FEB-2001;
            Oxford GlycoSciences (UK) Limited (GB)
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="synthetic construct"
```

```
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Probe"

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.5e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        397 GTGGTGGAGGAG 408
              ||||||||||||
Db          1 GTGGTGGAGGAG 12


RESULT 198
AX085035/c
LOCUS       AX085035                 12 bp    DNA     linear   PAT 09-MAR-2001
DEFINITION  Sequence 212 from Patent WO0113117.
ACCESSION   AX085035
VERSION     AX085035.1  GI:13275183
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Herath,H.M.
  TITLE     Proteins, genes and their use for diagnosis and treatment of breast
            cancer
  JOURNAL   Patent: WO 0113117-A 212 22-FEB-2001;
            Oxford GlycoSciences (UK) Limited (GB)
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Probe"

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.5e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        558 CACCTGGATCCA 569
              ||||||||||||
Db         12 CACCTGGATCCA 1


RESULT 199
AX224973/c
LOCUS       AX224973                 20 bp    DNA     linear   PAT 10-SEP-2001
DEFINITION  Sequence 127 from Patent WO0161030.
ACCESSION   AX224973
VERSION     AX224973.1  GI:15555046
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 127 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             2.0%;  Score 12;  DB 1;  Length 20;
  Best Local Similarity   75.0%;  Pred. No. 2.5e+02;
  Matches   15;  Conservative    0;  Mismatches    5;  Indels    0;  Gaps    0;

Qy        231 CCCCGGCGCCGCCGCGGGGC 250
              | | ||| |||| |||| ||
Db         20 CGCAGGCCCCGCGGCGGCGC 1


RESULT 200
AX377551/c
LOCUS       AX377551                 39 bp    DNA     linear   PAT 18-MAR-2002
DEFINITION  Sequence 28 from Patent WO0212553.
ACCESSION   AX377551
VERSION     AX377551.1  GI:19573737
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Kappel,A., Polakowski,T., Pignot,M., Windhab,N., Behrensdorf,H. and
            Muth,J.
  TITLE     Method for detecting mutations in nucleotide sequences
  JOURNAL   Patent: WO 0212553-A 28 14-FEB-2002;
            Nanogen Recognomics GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .39
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             1.9%;  Score 11.8;  DB 1;  Length 39;
  Best Local Similarity   69.6%;  Pred. No. 2e+02;
  Matches   16;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy         87 GTGGGATGCGGGAGATGTGGGCG 109
              | |||||||||  |    |||||
Db         35 GCGGGATGCGGCTGGATGGGGCG 13


RESULT 201
AX377550
LOCUS       AX377550                 39 bp    DNA     linear   PAT 18-MAR-2002
DEFINITION  Sequence 27 from Patent WO0212553.
ACCESSION   AX377550
VERSION     AX377550.1  GI:19573736
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Kappel,A., Polakowski,T., Pignot,M., Windhab,N., Behrensdorf,H. and
            Muth,J.
  TITLE     Method for detecting mutations in nucleotide sequences
  JOURNAL   Patent: WO 0212553-A 27 14-FEB-2002;
            Nanogen Recognomics GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .39
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             1.9%;  Score 11.8;  DB 1;  Length 39;
  Best Local Similarity   69.6%;  Pred. No. 2e+02;
  Matches   16;  Conservative    0;  Mismatches    7;  Indels    0;  Gaps    0;

Qy         87 GTGGGATGCGGGAGATGTGGGCG 109
              | |||||||||  |    |||||
Db          7 GCGGGATGCGGCTGGATGGGGCG 29


RESULT 202
AX224990/c
LOCUS       AX224990                 20 bp    DNA     linear   PAT 10-SEP-2001
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DEFINITION  Sequence 144 from Patent WO0161030.
ACCESSION   AX224990
VERSION     AX224990.1  GI:15555063
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Gray,D.M. and Bollon,A.P.
  TITLE     Libraries of optimum subsequence regions of mrna and genomic dna
            for control of gene expression
  JOURNAL   Patent: WO 0161030-A 144 23-AUG-2001;
            Cytoclonal Pharmaceutics, Inc. (US) ; University of Texas at
            Dallas, Dept. of Molecular and Cell Biology (US); Lab. of
            Experimental Carcinogenesis, National Cancer Institute/NIH (US)
FEATURES             Location/Qualifiers
     source          1. .20
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             1.8%;  Score 11.2;  DB 1;  Length 20;
  Best Local Similarity   81.2%;  Pred. No. 2.7e+02;
  Matches   13;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        300 CGGCGACGACTTCTCC 315
              ||||| | || |||||
Db         16 CGGCGCCCACATCTCC 1


RESULT 203
AX477733/c
LOCUS       AX477733                  26 bp    DNA     linear   PAT 12-AUG-2002
DEFINITION  Sequence 15 from Patent WO0240530.
ACCESSION   AX477733
VERSION     AX477733.1  GI:22216880
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Fesik,S.W., Petros,A.M., Yoon,H. and Nettesheim,D.G.
  TITLE     Mutant bcl-2 proteins and uses thereof
  JOURNAL   Patent: WO 0240530-A 15 23-MAY-2002;
            ABBOTT LABORATORIES (US)
FEATURES             Location/Qualifiers
     source          1. .26
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Primer"

  Query Match             1.8%;  Score 11.2;  DB 1;  Length 26;
  Best Local Similarity   66.7%;  Pred. No. 2.8e+02;
  Matches   16;  Conservative    0;  Mismatches    8;  Indels    0;  Gaps    0;

Qy        232 CCCGGCGCCGCCGCGGGGCCTGCG 255
              | |||||  | ||||| |   |||
Db         26 CTCGGCGAAGTCGCGGCGGTAGCG 3


RESULT 204
AX477734
LOCUS       AX477734                  26 bp    DNA     linear   PAT 12-AUG-2002
DEFINITION  Sequence 16 from Patent WO0240530.
ACCESSION   AX477734
VERSION     AX477734.1  GI:22216881
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Fesik,S.W., Petros,A.M., Yoon,H. and Nettesheim,D.G.
  TITLE     Mutant bcl-2 proteins and uses thereof
  JOURNAL   Patent: WO 0240530-A 16 23-MAY-2002;
            ABBOTT LABORATORIES (US)
FEATURES             Location/Qualifiers
     source          1. .26
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Primer"

  Query Match             1.8%;  Score 11.2;  DB 1;  Length 26;
  Best Local Similarity   66.7%;  Pred. No. 2.8e+02;
  Matches   16;  Conservative    0;  Mismatches    8;  Indels    0;  Gaps    0;

Qy        232 CCCGGCGCCGCCGCGGGGCCTGCG 255
              | |||||  | ||||| |   |||
Db          1 CTCGGCGAAGTCGCGGCGGTAGCG 24


RESULT 205
AR007299
LOCUS       AR007299                  11 bp    DNA     linear   PAT 04-DEC-1998
DEFINITION  Sequence 13 from patent US 5750390.
ACCESSION   AR007299
VERSION     AR007299.1  GI:3966783
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 11)
  AUTHORS   Thompson,J.D. and Draper,K.G.
  TITLE     Method and reagent for treatment of diseases caused by expression
            of the bcl-2 gene
  JOURNAL   Patent: US 5750390-A 13 12-MAY-1998;
FEATURES             Location/Qualifiers
     source          1. .11
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             1.8%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        479 AGAGCGTCAAC 489
              |||||||||||
Db          1 AGAGCGTCAAC 11


RESULT 206
I06925/c
LOCUS       I06925                    11 bp    DNA     linear   PAT 02-DEC-1994
DEFINITION  Sequence 15 from Patent EP 0340948.
ACCESSION   I06925
VERSION     I06925.1  GI:589842
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 11)
  AUTHORS   Wilcox,E., Edwards,D.L., Schwab,G.E., Thompson,M. and Culver,P.
  TITLE     Novel hybrid pesticidal toxins
  JOURNAL   Patent: EP 0340948-A1 15 08-NOV-1989;
FEATURES             Location/Qualifiers
     source          1. .11
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             1.8%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        353 AGCTGCACCTG 363
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                    ||||||||||
Db          11 AGCTGCACCTG 1


RESULT 207
AX470576
LOCUS       AX470576                  11 bp    DNA     linear   PAT 09-AUG-2002
DEFINITION  Sequence 153 from Patent WO02053773.
ACCESSION   AX470576
VERSION     AX470576.1  GI:22205701
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Hofmann,K., Conradt,M. and Petersohn,D.
  TITLE     Method for determining skin stress or skin ageing in vitro
  JOURNAL   Patent: WO 02053773-A 153 11-JUL-2002;
            HENKEL KGAA (DE)
FEATURES             Location/Qualifiers
     source          1. .11
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             1.8%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        591 TGCATCTGGTG 601
              ||||||||||
Db          1 TGCATCTGGTG 11


RESULT 208
AX623738
LOCUS       AX623738                  11 bp    DNA     linear   PAT 21-FEB-2003
DEFINITION  Sequence 779 from Patent WO02053774.
ACCESSION   AX623738
VERSION     AX623738.1  GI:28451679
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Petersohn,D., Conradt,M. and Hofmann,K.
  TITLE     Method for determining homeostasis of the skin
  JOURNAL   Patent: WO 02053774-A 779 11-JUL-2002;
            Henkel Kommanditgesellschaft auf Aktien (DE)
FEATURES             Location/Qualifiers
     source          1. .11
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             1.8%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        269 CACCTGTGGTC 279
              ||||||||||
Db          1 CACCTGTGGTC 11


RESULT 209
AX624323
LOCUS       AX624323                  11 bp    DNA     linear   PAT 21-FEB-2003
DEFINITION  Sequence 1364 from Patent WO02053774.
ACCESSION   AX624323
VERSION     AX624323.1  GI:28452264
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Petersohn,D., Conradt,M. and Hofmann,K.
  TITLE     Method for determining homeostasis of the skin
  JOURNAL   Patent: WO 02053774-A 1364 11-JUL-2002;
            Henkel Kommanditgesellschaft auf Aktien (DE)
FEATURES             Location/Qualifiers
     source          1. .11
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             1.8%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGC 11
              ||||||||||
Db          1 ATGGCGCACGC 11


RESULT 210
AX625443
LOCUS       AX625443                  11 bp    DNA     linear   PAT 21-FEB-2003
DEFINITION  Sequence 2484 from Patent WO02053774.
ACCESSION   AX625443
VERSION     AX625443.1  GI:28453384
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Petersohn,D., Conradt,M. and Hofmann,K.
  TITLE     Method for determining homeostasis of the skin
  JOURNAL   Patent: WO 02053774-A 2484 11-JUL-2002;
            Henkel Kommanditgesellschaft auf Aktien (DE)
FEATURES             Location/Qualifiers
     source          1. .11
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             1.8%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        416 GGGACGGGGTG 426
              ||||||||||
Db          1 GGGACGGGGTG 11


RESULT 211
AX627222/c
LOCUS       AX627222                  11 bp    DNA     linear   PAT 21-FEB-2003
DEFINITION  Sequence 4263 from Patent WO02053774.
ACCESSION   AX627222
VERSION     AX627222.1  GI:28455260
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Petersohn,D., Conradt,M. and Hofmann,K.
  TITLE     Method for determining homeostasis of the skin
  JOURNAL   Patent: WO 02053774-A 4263 11-JUL-2002;
            Henkel Kommanditgesellschaft auf Aktien (DE)
FEATURES             Location/Qualifiers
     source          1. .11
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                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             1.8%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        279 CCACCTGGCCC 289
              ||||||||||| 
Db         11 CCACCTGGCCC 1


RESULT 212
AX628101/c
LOCUS       AX628101                  11 bp    DNA     linear   PAT 21-FEB-2003
DEFINITION  Sequence 5142 from Patent WO02053774.
ACCESSION   AX628101
VERSION     AX628101.1  GI:28456139
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Petersohn,D., Conradt,M. and Hofmann,K.
  TITLE     Method for determining homeostasis of the skin
  JOURNAL   Patent: WO 02053774-A 5142 11-JUL-2002;
            Henkel Kommanditgesellschaft auf Aktien (DE)
FEATURES             Location/Qualifiers
     source          1. .11
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             1.8%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        509 TGGACAACATC 519
              ||||||||||| 
Db         11 TGGACAACATC 1


RESULT 213
AX630057
LOCUS       AX630057                  11 bp    DNA     linear   PAT 21-FEB-2003
DEFINITION  Sequence 7098 from Patent WO02053774.
ACCESSION   AX630057
VERSION     AX630057.1  GI:28458095
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Petersohn,D., Conradt,M. and Hofmann,K.
  TITLE     Method for determining homeostasis of the skin
  JOURNAL   Patent: WO 02053774-A 7098 11-JUL-2002;
            Henkel Kommanditgesellschaft auf Aktien (DE)
FEATURES             Location/Qualifiers
     source          1. .11
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             1.8%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        591 TGCATCTGGTG 601
              ||||||||||| 
Db         1 TGCATCTGGTG 11


RESULT 214
AX631159
LOCUS       AX631159                  11 bp    DNA     linear   PAT 21-FEB-2003
DEFINITION  Sequence 8200 from Patent WO02053774.
ACCESSION   AX631159
VERSION     AX631159.1  GI:28459203
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Petersohn,D., Conradt,M. and Hofmann,K.
  TITLE     Method for determining homeostasis of the skin
  JOURNAL   Patent: WO 02053774-A 8200 11-JUL-2002;
            Henkel Kommanditgesellschaft auf Aktien (DE)
FEATURES             Location/Qualifiers
     source          1. .11
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             1.8%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        269 CACCTGTGGTC 279
              ||||||||||| 
Db         1 CACCTGTGGTC 11


RESULT 215
AX631744
LOCUS       AX631744                  11 bp    DNA     linear   PAT 21-FEB-2003
DEFINITION  Sequence 8786 from Patent WO02053774.
ACCESSION   AX631744
VERSION     AX631744.1  GI:28459851
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Petersohn,D., Conradt,M. and Hofmann,K.
  TITLE     Method for determining homeostasis of the skin
  JOURNAL   Patent: WO 02053774-A 8786 11-JUL-2002;
            Henkel Kommanditgesellschaft auf Aktien (DE)
FEATURES             Location/Qualifiers
     source          1. .11
                     /organism="Homo sapiens"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:9606"

  Query Match             1.8%;  Score 11;  DB 1;  Length 11;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGC 11
              ||||||||||| 
Db          1 ATGGCGCACGC 11


RESULT 216
AR241838
LOCUS       AR241838                  12 bp    DNA     linear   PAT 20-DEC-2002
DEFINITION  Sequence 126 from patent US 6472154.
ACCESSION   AR241838
VERSION     AR241838.1  GI:27287650
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
```

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            Unclassified.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Garner,H.R., Wren,J.D., Minna,J.D. and Fondon,J.W. III.
  TITLE     Polymorphic repeats in human genes
  JOURNAL   Patent: US 6472154-A 126 29-OCT-2002;
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        114 GCCCCCGGGGG 124
              ||||||||||
Db          2 GCCCCCGGGGG 12


RESULT 217
AR146357/c
LOCUS       AR146357                  12 bp    DNA     linear   PAT 08-AUG-2001
DEFINITION  Sequence 69 from patent US 6218371.
ACCESSION   AR146357
VERSION     AR146357.1  GI:15109546
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Krieg,A.M. and Weiner,G.
  TITLE     Methods and products for stimulating the immune system using
            immunotherapeutic oligonucleotides and cytokines
  JOURNAL   Patent: US 6218371-A 69 17-APR-2001;
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


RESULT 218
AR154740/c
LOCUS       AR154740                  12 bp    DNA     linear   PAT 08-AUG-2001
DEFINITION  Sequence 69 from patent US 6239116.
ACCESSION   AR154740
VERSION     AR154740.1  GI:15122793
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Krieg,A.M. and Kline,J.N.
  TITLE     Immunostimulatory nucleic acid molecules
  JOURNAL   Patent: US 6239116-A 69 29-MAY-2001;
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="unknown"
                     /mol_type="unassigned DNA"

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


RESULT 219
BD261121/c
LOCUS       BD261121                  12 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Methods and products for stimulating the immune system using
            immunotherapeutic oligonucleotides and cytokines.
ACCESSION   BD261121
VERSION     BD261121.1  GI:33070891
KEYWORDS    JP 2002510644-A/69.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Krieg,A.M. and Weiner,G.
  TITLE     Methods and products for stimulating the immune system using
            immunotherapeutic oligonucleotides and cytokines
  JOURNAL   Patent: JP 2002510644-A 69 09-APR-2002;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT     OS   Artificial Sequence
            PN   JP 2002510644-A/69
            PD   09-APR-2002
            PF   02-APR-1999 JP 2000542030
            PR   03-APR-1998 US    60/080729
            PI   ARTHUR M KRIEG,GEORGE WEINER
            PC   A61K38/00,A61K31/7088,A61K39/00,A61P15/00,A61P35/00,A61P37/04,
            PC   A61K37/02
            CC   Synthetic Sequence
            FH   Key             Location/Qualifiers
            FT   source          1. .12
            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="synthetic construct"
                     /mol_type="genomic DNA"
                     /db_xref="taxon:32630"

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


RESULT 220
BD261280/c
LOCUS       BD261280                  12 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Methods and products for inducing mucosal immunity.
ACCESSION   BD261280
VERSION     BD261280.1  GI:33071050
KEYWORDS    JP 2002516294-A/59.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Mccluskie,M.J. and Davis,H.L.
  TITLE     Methods and products for inducing mucosal immunity
  JOURNAL   Patent: JP 2002516294-A 59 04-JUN-2002;
            LOEB HEALTH RESEARCH INSTITUTE AT THE OTTAWA HOSPITAL, CORY
            PHARMACEUTICALS GROUP INC
COMMENT     OS   Artificial Sequence
            PN   JP 2002516294-A/59
            PD   04-JUN-2002
            PF   21-MAY-1999 JP 2000550515
            PR   22-MAY-1998 US    60/086393
            PI   MICHAEL J MCCLUSKIE,HEATHER L DAVIS
            PC
            A61K39/00,A61K9/10,A61K9/16,A61K9/50,A61K9/51,A61K31/70,A61K39/ PC
             39,
            PC   A61P31/00,A61P35/00,A61P37/00
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CC immunostimulatory synthetic oligonucleotide
FH Key Location/Qualifiers
FT source 1. .12
FT /organism='Artificial Sequence'.

FEATURES Location/Qualifiers
source 1. .12
/organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon:32630"

Query Match 1.8%; Score 11; DB 1; Length 12;
Best Local Similarity 100.0%; Pred. No. 1.8e+02;
Matches 11; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 GGCGCACGCTG 13
||||||||||||
Db 12 GGCGCACGCTG 2

RESULT 221
BD267885/c
LOCUS BD267885 12 bp DNA linear PAT 17-JUL-2003
DEFINITION Methods for the prevention and treatment of parasitic infections and related diseases using CPG oligonucleotides.
ACCESSION BD267885
VERSION BD267885.1 GI:33077653
KEYWORDS JP 2002513763-A/58.
SOURCE synthetic construct
ORGANISM synthetic construct
artificial sequences.
REFERENCE 1 (bases 1 to 12)
AUTHORS Gramzinski,R.A., Krieg,A.M., Davis,H.L. and Hoffman,S.L.
TITLE Methods for the prevention and treatment of parasitic infections and related diseases using CPG oligonucleotides
JOURNAL Patent: JP 2002513763-A 58 14-MAY-2002;
UNIVERSITY OF IOWA RESEARCH FOUNDATION, OTTAWA CIVIC LOEB RESEARCH INSTITUTE, UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY OF THE NAVY
COMMENT OS Artificial Sequence
PN JP 2002513763-A/58
PD 14-MAY-2002
PF 06-MAY-1999 JP 2000546780
PR 06-MAY-1998 US 60/084512
PI ROBERT A GRAMZINSKI,ARTHUR M KRIEG,HEATHER L DAVIS,STEPHEN L
PI HOFFMAN
PC A61K31/711,A61K9/127,A61K38/00,A61K38/22,A61K45/00,A61P31/00,
PC A61P33/00//
PC C12N15/09,A61K37/02,A61K37/24,C12N15/00
CC Synthetic Sequence
FH Key Location/Qualifiers
FT source 1. .12
FT /organism='Artificial Sequence'.
FEATURES Location/Qualifiers
source 1. .12
/organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon:32630"

Query Match 1.8%; Score 11; DB 1; Length 12;
Best Local Similarity 100.0%; Pred. No. 1.8e+02;
Matches 11; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 GGCGCACGCTG 13
||||||||||||
Db 12 GGCGCACGCTG 2

RESULT 222
BD270786/c
LOCUS BD270786 12 bp DNA linear PAT 17-JUL-2003
DEFINITION Stereoisomer of CpG oligonucleotide and method relating thereto.
ACCESSION BD270786
VERSION BD270786.1 GI:33080554
KEYWORDS JP 2002521489-A/59.
SOURCE synthetic construct
ORGANISM synthetic construct
artificial sequences.
REFERENCE 1 (bases 1 to 12)
AUTHORS Krieg,A.M.
TITLE Stereoisomer of CpG oligonucleotide and method relating thereto
JOURNAL Patent: JP 2002521489-A 59 16-JUL-2002;
UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT OS Artificial Sequence
PN JP 2002521489-A/59
PD 16-JUL-2002
PF 27-JUL-1999 JP 2000562385
PR 27-JUL-1998 US 60/094370
PI ARTHUR M KRIEG
PC A61K31/711,A61P11/06,A61P17/00,A61P27/02,A61P29/00,A61P31/00,
PC A61P31/00,
PC A61P35/00,A61P37/04,A61P37/06,A61P37/08
CC Synthetic
FH Key Location/Qualifiers
FT source 1. .12
FT /organism='Artificial Sequence'.
FEATURES Location/Qualifiers
source 1. .12
/organism="synthetic construct"
/mol_type="genomic DNA"
/db_xref="taxon:32630"

Query Match 1.8%; Score 11; DB 1; Length 12;
Best Local Similarity 100.0%; Pred. No. 1.8e+02;
Matches 11; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 GGCGCACGCTG 13
||||||||||||
Db 12 GGCGCACGCTG 2

RESULT 223
AR213859/c
LOCUS AR213859 12 bp DNA linear PAT 25-SEP-2002
DEFINITION Sequence 59 from patent US 6406705.
ACCESSION AR213859
VERSION AR213859.1 GI:23311258
KEYWORDS .
SOURCE Unknown.
ORGANISM Unknown.
Unclassified.
REFERENCE 1 (bases 1 to 12)
AUTHORS Davis,H.L., Schorr,J. and Krieg,A.M.
TITLE Use of nucleic acids containing unmethylated CpG dinucleotide as an adjuvant
JOURNAL Patent: US 6406705-A 59 18-JUN-2002;
FEATURES Location/Qualifiers
source 1. .12
/organism="unknown"
/mol_type="genomic DNA"

Query Match 1.8%; Score 11; DB 1; Length 12;
Best Local Similarity 100.0%; Pred. No. 1.8e+02;
Matches 11; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 3 GGCGCACGCTG 13
||||||||||||
Db 12 GGCGCACGCTG 2

RESULT 224
AR222229/c
LOCUS AR222229 12 bp DNA linear PAT 26-SEP-2002
DEFINITION Sequence 63 from patent US 6429199.
ACCESSION AR222229
VERSION AR222229.1 GI:23329694
KEYWORDS .

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SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Krieg,A.M. and Hartmann,G.
  TITLE     Immunostimulatory nucleic acid molecules for activating dendritic
            cells
  JOURNAL   Patent: US 6429199-A 63 06-AUG-2002;
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


RESULT 225
AR432490/c
LOCUS       AR432490                  12 bp    DNA     linear   PAT 18-DEC-2003
DEFINITION  Sequence 69 from patent US 6653292.
ACCESSION   AR432490
VERSION     AR432490.1  GI:40194825
KEYWORDS    .
SOURCE      Unknown.
  ORGANISM  Unknown.
            Unclassified.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Krieg,A.M. and Weiher,G.
  TITLE     Method of treating cancer using immunostimulatory oligonucleotides
  JOURNAL   Patent: US 6653292-A 69 25-NOV-2003;
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="unknown"
                     /mol_type="genomic DNA"

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


RESULT 226
AX098968/c
LOCUS       AX098968                  12 bp    DNA     linear   PAT 02-APR-2001
DEFINITION  Sequence 31 from Patent WO0120026.
ACCESSION   AX098968
VERSION     AX098968.1  GI:13538178
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Wojnowski,L. and Hustert,E.
  TITLE     Polymorphisms in the human hpxr gene and their use in diagnostic
            and therapeutic applications
  JOURNAL   Patent: WO 0120026-A 31 22-MAR-2001;
            Epidauros Biotechnologie AG (DE)
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="artificial sequence"

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        267 GCCACCTGTGG 277
              ||||||||||
Db         11 GCCACCTGTGG 1


RESULT 227
AX103879/c
LOCUS       AX103879                  12 bp    DNA     linear   PAT 30-APR-2001
DEFINITION  Sequence 71 from Patent WO0122972.
ACCESSION   AX103879
VERSION     AX103879.1  GI:13920076
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Krieg,A.M., Schetter,C. and Vollmer,J.C.
  TITLE     Immunostimulatory nucleic acids
  JOURNAL   Patent: WO 0122972-A 71 05-APR-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US) ; Coley Pharmaceutical
            GmbH (DE)
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


RESULT 228
AX105175/c
LOCUS       AX105175                  12 bp    DNA     linear   PAT 30-APR-2001
DEFINITION  Sequence 74 from Patent WO0122990.
ACCESSION   AX105175
VERSION     AX105175.1  GI:13921325
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Hartmann,G.D., Bratzler,R.L. and Krieg,A.U.
  TITLE     Methods related to immunostimulatory nucleic acid-induced
            interferon
  JOURNAL   Patent: WO 0122990-A 74 05-APR-2001;
            Coley Pharmaceutical Group, Inc. (US) ; UNIVERSITY OF IOWA RESEARCH
            FOUNDATION (US)
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="Synthetic Oligonucleotide"

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2
```

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RESULT 229
AX136993/c
LOCUS       AX136993                12 bp    DNA     linear   PAT 30-MAY-2001
DEFINITION  Sequence 67 from Patent EP1088900.
ACCESSION   AX136993
VERSION     AX136993.1  GI:14273340
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Hustert,E., Wojnowski,L. and Eiselt,R.
  TITLE     Polymorphisms in the human cyp3a4, cyp3a7 and hpxr genes and their
            use in diagnostic and therapeutic applications
  JOURNAL   Patent: EP 1088900-A 67 04-APR-2001;
            Epidauros Biotechnologie AG (DE)
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="synthetic construct"
                     /mol_type="unassigned DNA"
                     /db_xref="taxon:32630"
                     /note="DNA"

  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        267 GCCACCTGTGG 277
              ||||||||||
Db         11 GCCACCTGTGG 1


RESULT 230
AX355490/c
LOCUS       AX355490                12 bp    DNA     linear   PAT 06-FEB-2002
DEFINITION  Sequence 518 from Patent WO0197843.
ACCESSION   AX355490
VERSION     AX355490.1  GI:18620158
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Weiner,G. and Hartmann,G.
  TITLE     Methods for enhancing antibody-induced cell lysis and treating
            cancer
  JOURNAL   Patent: WO 0197843-A 518 27-DEC-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION (US)
FEATURES             Location/Qualifiers
     source          1. .12
                     /organism="synthetic construct"
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                     /note="Synthetic oligonucleotide-phosphorothioate
                     backbone"

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  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


RESULT 231
AX455596/c
LOCUS       AX455596                12 bp    DNA     linear   PAT 06-JUL-2002
DEFINITION  Sequence 73 from Patent WO0222809.
ACCESSION   AX455596
VERSION     AX455596.1  GI:21714664
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Bauer,S., Lipford,G. and Wagner,H.
  TITLE     Process for high throughput screening of cpg-based
            immuno-agonist/antagonist
  JOURNAL   Patent: WO 0222809-A 73 21-MAR-2002;
            Coley Pharmaceutical GmbH (DE)
FEATURES             Location/Qualifiers
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  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
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Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


RESULT 232
AX546932/c
LOCUS       AX546932                12 bp    DNA     linear   PAT 01-MAR-2003
DEFINITION  Sequence 71 from Patent WO02053141.
ACCESSION   AX546932
VERSION     AX546932.1  GI:25812076
KEYWORDS    .
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1
  AUTHORS   Bratzler,R.L.
  TITLE     Inhibition of angiogenesis by nucleic acids
  JOURNAL   Patent: WO 02053141-A 71 11-JUL-2002;
            Coley Pharmaceutical Group, Inc. (US)
FEATURES             Location/Qualifiers
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  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


RESULT 233
AX786568/c
LOCUS       AX786568                12 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Sequence 59 from Patent WO03030934.
ACCESSION   AX786568
VERSION     AX786568.1  GI:32953989
KEYWORDS    .
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
REFERENCE   1
  AUTHORS   Babiuk,L.A. and Hecker,R.
  TITLE     Cpg formulations and related methods
  JOURNAL   Patent: WO 03030934-A 59 17-APR-2003;
            QIAGEN GmbH (DE) ; University of Saskatchewan (CA)
FEATURES             Location/Qualifiers
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Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


RESULT 234
BD009123/c
LOCUS       BD009123                  12 bp    DNA     linear   PAT 31-JAN-2002
DEFINITION  Immunostimulatory nucleic acid molecules.
ACCESSION   BD009123
VERSION     BD009123.1  GI:18637496
KEYWORDS    JP 2001503267-A/75.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Krieg,A.M. and Kline,J.N.
  TITLE     Immunostimulatory nucleic acid molecules
  JOURNAL   Patent: JP 2001503267-A 75 13-MAR-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT     OS   Artificial Sequence
            PN   JP 2001503267-A/75
            PD   13-MAR-2001
            PF   30-OCT-1997 JP 1998520784
            PR   30-OCT-1996 US    08/738652
            PI   ARTHUR M KRIEG,JOEL N KLINE
            PC   C07H21/00,C07H21/02,C07H21/04,A61K31/175,A61K31/335,A61K31/47,
            PC   A61K31/70
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            FH   Key             Location/Qualifiers
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            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
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  Query Match             1.8%;  Score 11;  DB 1;  Length 12;
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Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


RESULT 235
BD069949/c
LOCUS       BD069949                  12 bp    DNA     linear   PAT 27-AUG-2002
DEFINITION  Use of nucleic acids containing unmethylated CPG dinucleotide in
            the treatment of LPS-associated disorders.
ACCESSION   BD069949
VERSION     BD069949.1  GI:22615552
KEYWORDS    JP 2001513776-A/38.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Schwartz,D.A. and Krieg,A.M.
  TITLE     Use of nucleic acids containing unmethylated CPG dinucleotide in
            the treatment of LPS-associated disorders
  JOURNAL   Patent: JP 2001513776-A 38 04-SEP-2001;
            UNIVERSITY OF IOWA RESEARCH FOUNDATION
COMMENT     OS   Artificial Sequence
            PN   JP 2001513776-A/38
            PD   04-SEP-2001
            PF   25-FEB-1998 JP 1998537810
            PR   28-FEB-1997 US    60/039405
            PI   DAVID A SCHWARTZ,ARTHUR M KRIEG
            PC   A61K49/00,C07H21/02,C07H21/04,A01N43/04
            CC   synthetic oligonucleotide
            FH   Key             Location/Qualifiers
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            FT                   /organism='Artificial Sequence'.
FEATURES             Location/Qualifiers
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  Matches   11;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


RESULT 236
BD205579/c
LOCUS       BD205579                  12 bp    DNA     linear   PAT 17-JUL-2003
DEFINITION  Method of controlling hematopoiesis by using CpG oligonucleotide.
ACCESSION   BD205579
VERSION     BD205579.1  GI:33015349
KEYWORDS    JP 2002514397-A/69.
SOURCE      synthetic construct
  ORGANISM  synthetic construct
            artificial sequences.
REFERENCE   1  (bases 1 to 12)
  AUTHORS   Wagner,H. and Lipford,G.
  TITLE     Method of controlling hematopoiesis by using CpG oligonucleotide
  JOURNAL   Patent: JP 2002514397-A 69 21-MAY-2002;
            CORY PHARMACEUTICALS GMBH,CORY PHARMACEUTICALS GROUP INC
COMMENT     OS   Artificial Sequence
            PN   JP 2002514397-A/69
            PD   21-MAY-2002
            PF   14-MAY-1999 JP 2000547969
            PR   14-MAY-1998 US    60/085516,02-FEB-1999 US    09/241653 PI
            HERMANN WAGNER,GRAYSON LIPFORD
            PC   C12N15/09,A61K31/70,A61K39/39,C07H21/04//A61K45/00,C12N15/00
            CC   Synthetic Sequence
            FH   Key             Location/Qualifiers
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FEATURES             Location/Qualifiers
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Qy          3 GGCGCACGCTG 13
              ||||||||||
Db         12 GGCGCACGCTG 2


Search completed: September 22, 2004, 08:52:51
Job time : 3 secs
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OM nucleic - nucleic search, using sw model

Run on: September 22, 2004, 08:55:17 ; Search time 2 Seconds
(without alignments)
2.949 Million cell updates/sec

Title: US-09-375-514B-22
Perfect score: 615
Sequence: 1 atggcgcacgctgggagaac.....ctggtgatgtgagtctgggc 615

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

Searched: 259 seqs, 4795 residues

Total number of hits satisfying chosen parameters: 518

Minimum DB seq length: 10
Maximum DB seq length: 40

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 267 summaries

Database : rng22.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	36	5.9	36	1	AAQ51961	BCL-2 mRNA ribozym
	2	33	5.4	33	1	AAQ51951	BCL-2 mRNA ribozym
	3	29	4.7	29	1	ABX13065	Human bcl-2 PCR pr
	4	28	4.6	28	1	AAQ51954	BCL-2 mRNA ribozym
c	5	27	4.4	27	1	AAL46663	Human bcl-2 mRNA p
c	6	25.4	4.1	27	1	AAH45302	Human Bcl-2 mutage
c	7	25.4	4.1	27	1	AAH45300	Human Bcl-2 mutage
	8	25	4.1	25	1	AAA73296	Bcl-2 specific gen
c	9	24.4	4.0	26	1	ABS63514	Human Bcl2 PCR pri
	10	24.4	4.0	26	1	ABS63513	Human Bcl2 PCR pri
	11	24	3.9	24	1	AAA76092	BCL-2 PCR primer #
	12	24	3.9	24	1	AAF82684	Human BCL-2 PCR pr
c	13	24	3.9	24	1	ABK52487	Fluorescent probe
c	14	24	3.9	24	1	ABN85362	Bcl-2 related olig
	15	24	3.9	24	1	ABK15648	Bcl-2 RNA-DNA hybr
	16	23	3.7	23	1	AAQ51950	BCL-2 mRNA ribozym
c	17	23	3.7	23	1	AAA26255	Bcl-2 antisense ol
c	18	23	3.7	23	1	AAA26253	Bcl-2 antisense ol
c	19	22.4	3.6	24	1	AAT36054	bcl-2 reverse PCR
c	20	22.4	3.6	24	1	AAV81830	Mouse bcl-2 revers
c	21	22.4	3.6	24	1	AAX26250	Reverse primer for
c	22	22.4	3.6	24	1	AAA88587	PCR primer for mou
c	23	22.4	3.6	24	1	AAZ89800	Reverse primer for
c	24	22.4	3.6	24	1	AAZ88011	Mouse bcl-2 revers
	25	22	3.6	22	1	AAQ51952	BCL-2 mRNA ribozym
	26	22	3.6	22	1	AAC65038	Bcl2 RNA RT-PCR pr
	27	21	3.4	21	1	ABN85360	Bcl-2 related olig
c	28	21	3.4	21	1	ABN85361	Bcl-2 related olig
	29	20	3.3	20	1	AAT33695	Human BCL2 cDNA se
c	30	20	3.3	20	1	AAV19653	Human bcl-2 antise
c	31	20	3.3	20	1	AAV84100	Antisense oligonuc
	32	20	3.3	20	1	AAX27537	Synthetic RNA sequ
	33	20	3.3	20	1	AAZ37380	PCR primer for hum
	34	20	3.3	20	1	AAD15629	Human Bcl-2 protei
	35	20	3.3	20	1	AAD15639	Human Bcl-2 protei
	36	20	3.3	20	1	AAD15640	Human Bcl-2 protei
	37	20	3.3	20	1	AAD15642	Human Bcl-2 protei
	38	20	3.3	20	1	AAD15628	Human Bcl-2 protei
	39	20	3.3	20	1	AAD15631	Human Bcl-2 protei
	40	20	3.3	20	1	AAD15641	Human Bcl-2 protei
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	42	20	3.3	20	1	AAD15630	Human Bcl-2 protei
	43	20	3.3	20	1	AAD15633	Human Bcl-2 protei
	44	20	3.3	20	1	AAD15637	Human Bcl-2 protei
	45	20	3.3	20	1	AAD15635	Human Bcl-2 protei
	46	20	3.3	20	1	AAD15634	Human Bcl-2 protei
	47	20	3.3	20	1	AAD15646	Human Bcl-2 protei
	48	20	3.3	20	1	AAD15627	Human Bcl-2 protei
	49	20	3.3	20	1	AAD15638	Human Bcl-2 protei
	50	20	3.3	20	1	AAD15632	Human Bcl-2 protei
	51	20	3.3	20	1	AAD15636	Human Bcl-2 protei
c	52	20	3.3	20	1	ABK90266	Bcl-2-targeting an
c	53	20	3.3	20	1	ABQ78524	Antisense oligodeo
c	54	20	3.3	20	1	ABK52485	PCR primer #1 for
	55	20	3.3	20	1	ABK52486	PCR primer #2 for
c	56	20	3.3	20	1	ABL54151	Bcl-2 antisense ol
c	57	20	3.3	20	1	ABT16736	bcl-2 PCR primer S
	58	20	3.3	20	1	ACC99688	Bcl2 PCR primer SE
c	59	20	3.3	20	1	ADC66004	Phosphorothioate c
	60	19	3.1	19	1	AAQ51957	BCL-2 mRNA ribozym
	61	19	3.1	19	1	AAQ51958	BCL-2 mRNA ribozym
	62	19	3.1	19	1	AAQ51960	BCL-2 mRNA ribozym
	63	19	3.1	19	1	AAA95740	PKCalpha primer-pa
	64	19	3.1	19	1	ABN88834	Human bcl-2 PCR pr
	65	19	3.1	20	1	AAD15645	Human Bcl-2 protei
	66	18.4	3.0	20	1	AAZ35732	Oligonucleotide D0
c	67	18.4	3.0	20	1	AAZ35730	Bcl-2 antisense ol
c	68	18.4	3.0	20	1	AAX09086	Tumour necrosis fa
c	69	18.4	3.0	20	1	AAH48720	Proto-oncogene bcl
	70	18.4	3.0	20	1	AAH48721	Proto-oncogene bcl
	71	18.4	3.0	20	1	AAD15644	Human Bcl-2 protei
c	72	18.2	3.0	19	1	AAC65072	Human bcl genes an
c	73	18	2.9	18	1	AAQ86659	Bcl-2 antisense ol
c	74	18	2.9	18	1	AAV52545	Unmethylated CpG d
c	75	18	2.9	18	1	AAV28181	Antisense oligonuc
c	76	18	2.9	18	1	AAV27719	Immunostimulatory
c	77	18	2.9	18	1	AAV19667	Human bcl-2 antise
c	78	18	2.9	18	1	AAZ41948	IL-12 secretion in
c	79	18	2.9	18	1	AAZ41905	IL-12 secretion in
c	80	18	2.9	18	1	AAX78803	HPV fusion protein
c	81	18	2.9	18	1	AAV99434	Antisense oligonuc
c	82	18	2.9	18	1	AAZ31944	CpG adjuvant oligo
	83	18	2.9	18	1	AAX27536	Synthetic RNA sequ
c	84	18	2.9	18	1	AAX18702	Target bcl-2 antis
c	85	18	2.9	18	1	AAX88537	Cytosine-guanosine
c	86	18	2.9	18	1	AAX33514	BCL2-targeted anti
c	87	18	2.9	18	1	AAX23693	Deletion sequence
c	88	18	2.9	18	1	AAZ60975	Nucleotide sequenc
c	89	18	2.9	18	1	AAZ48024	Immune remodeling
c	90	18	2.9	18	1	AAZ47981	Immune remodeling
c	91	18	2.9	18	1	AAA14470	Phosphorothioate o
c	92	18	2.9	18	1	AAZ87997	BBTE-labeled oligo
	93	18	2.9	18	1	AAZ46800	Human Bcl-2 gene a
c	94	18	2.9	18	1	AAZ47850	Immunostimulatory
c	95	18	2.9	18	1	AAA38517	Oligonucleotide us
c	96	18	2.9	18	1	AAA90450	CpG adjuvant oligo
c	97	18	2.9	18	1	AAZ99003	CpG motif for immu
c	98	18	2.9	18	1	AAZ98660	Human Bcl-2 therap
c	99	18	2.9	18	1	AAA39264	CpG immunostimulat
c	100	18	2.9	18	1	AAZ47680	Parasitic infectio
c	101	18	2.9	18	1	AAZ47643	Parasitic infectio
c	102	18	2.9	18	1	AAA91620	Human Bcl-2 antise
c	103	18	2.9	18	1	AAC60278	Immunostimulatory
c	104	18	2.9	18	1	AAC65037	Bcl2 antisense seq
c	105	18	2.9	18	1	AAC64137	Immunostimulatory
c	106	18	2.9	18	1	AAH20395	CpG motif containi

c 107	18	2.9	18	1	AAH50615	Natural killer cel
c 108	18	2.9	18	1	AAF60923	Anti-bcl oligonucl
c 109	18	2.9	18	1	AAH19305	CpG oligonucleotid
c 110	18	2.9	18	1	AAF98832	CpG immunostimulat
c 111	18	2.9	18	1	AAF59502	Immunostimulatory
c 112	18	2.9	18	1	AAF98930	Immunostimulatory
c 113	18	2.9	18	1	AAF98929	Immunostimulatory
c 114	18	2.9	18	1	AAF98966	Immunostimulatory
c 115	18	2.9	18	1	AAF98885	Immunostimulatory
c 116	18	2.9	18	1	AAA92362	CG motif and CFA c
c 117	18	2.9	18	1	AAS08980	CpG-containing oli
c 118	18	2.9	18	1	AAF27748	P. falciparum vacc
c 119	18	2.9	18	1	ABQ88341	Immunostimulatory
c 120	18	2.9	18	1	ABK90280	Bcl-2-targeting an
c 121	18	2.9	18	1	ABK90285	Bcl-2-targeting an
c 122	18	2.9	18	1	ABL01615	bcl-2 targeted ant
c 123	18	2.9	18	1	AAL44699	Human bcl-2 antise
c 124	18	2.9	18	1	ABS77607	Angiogenesis inhib
c 125	18	2.9	18	1	ABS77570	Angiogenesis inhib
c 126	18	2.9	18	1	ABS77571	Angiogenesis inhib
c 127	18	2.9	18	1	ABS77517	Angiogenesis inhib
c 128	18	2.9	18	1	ABL39323	Immunostimulatory
c 129	18	2.9	18	1	ABL39324	Immunostimulatory
c 130	18	2.9	18	1	ABA97468	Bcl-2 targeted ant
c 131	18	2.9	18	1	ABV73939	Methylated CpG oli
c 132	18	2.9	18	1	ABV73938	CpG oligonucleotid
133	18	2.9	18	1	AAL46661	Human bcl-2 mRNA P
c 134	18	2.9	18	1	AAL43435	Immunostimulatory
c 135	18	2.9	18	1	ABV74424	Immunostimulatory
c 136	18	2.9	18	1	AAL44489	CpG motif oligonuc
c 137	18	2.9	18	1	ABQ78541	Antisense oligodeo
c 138	18	2.9	18	1	ABQ78538	Antisense oligodeo
c 139	18	2.9	18	1	ABN88303	Immunostimulatory
c 140	18	2.9	18	1	AAD22796	Human bcl-2 antise
c 141	18	2.9	18	1	ABL58454	CpG immunostimulat
c 142	18	2.9	18	1	AAL39240	Murine Toll-like r
c 143	18	2.9	18	1	ABS70564	Dendritic cell sti
c 144	18	2.9	18	1	ABL53546	CpR oligonucleotid
c 145	18	2.9	18	1	ABL53544	CpR oligonucleotid
c 146	18	2.9	18	1	ABL54169	Oligonucleotide.
c 147	18	2.9	18	1	ABL54148	Bcl-2 antisense ol
c 148	18	2.9	18	1	ACF36817	Immunostimulatory
c 149	18	2.9	18	1	ABX76040	Immunostimulatory
c 150	18	2.9	18	1	ACA58705	Gastric ulcer trea
c 151	18	2.9	18	1	ABX13191	Antisense oligonuc
c 152	18	2.9	18	1	ABZ76751	Phosphorothioate o
c 153	18	2.9	18	1	ACC59107	CpG oligonucleotid
c 154	18	2.9	18	1	ABZ80168	Immunostimulatory
c 155	18	2.9	18	1	ACC59006	Human bcl-2 antise
c 156	18	2.9	18	1	ABX89852	Cancer medicament
c 157	18	2.9	18	1	ABZ22867	Phosphorothioate m
c 158	18	2.9	18	1	ACA92708	Immunostimulatory
c 159	18	2.9	18	1	ACD99315	Immunostimulatory
c 160	18	2.9	18	1	ACD99399	Immunostimulatory
c 161	18	2.9	18	1	ACC58501	Oligonucleotide OD
c 162	18	2.9	18	1	ACC58516	Oligonucleotide OD
c 163	18	2.9	18	1	ADA24232	Human bcl-2 antise
c 164	18	2.9	18	1	ADB36468	Immunostimulatory
c 165	18	2.9	18	1	ADB36431	Immunostimulatory
c 166	18	2.9	18	1	ADB36432	Immunostimulatory
c 167	18	2.9	18	1	ADB36387	Immunostimulatory
168	18	2.9	18	1	ADB54074	Oligonucleotide 66
c 169	18	2.9	18	1	ADC24658	Antisense DNA #6 t
c 170	18	2.9	18	1	ADC33583	Human bcl2 antisen
c 171	18	2.9	18	1	AAD60214	Oligonucleotide 17
172	18	2.9	19	1	AAL40451	Maxizyme related B
c 173	18	2.9	20	1	AAV74246	CpG-N motif SOS-OD
c 174	18	2.9	20	1	AAC65049	Human bcl genes an
c 175	18	2.9	20	1	AAC65048	Human bcl genes an
c 176	18	2.9	20	1	AAF98962	Immunostimulatory
c 177	18	2.9	20	1	ABS77603	Angiogenesis inhib
c 178	18	2.9	20	1	ABL39325	Immunostimulatory
179	18	2.9	20	1	ACD99395	Immunostimulatory
c 180	18	2.9	20	1	ADB36464	Immunostimulatory
c 181	17.6	2.9	18	1	AAC65067	Human bcl genes an
182	17	2.8	17	1	AAQ51956	BCL-2 mRNA ribozym
c 183	17	2.8	17	1	AAV19658	Human bcl-2 antise
c 184	17	2.8	17	1	AAV19659	Human bcl-2 antise
c 185	17	2.8	17	1	AAX88277	Human bcl-2 antise
c 186	17	2.8	17	1	ABK90362	Bcl-2-targeting an
c 187	17	2.8	17	1	AAL46662	Human bcl-2 mRNA P
c 188	17	2.8	18	1	AAC65068	Human bcl genes an
c 189	16.8	2.7	18	1	AAC65069	Human bcl genes an
c 190	16.6	2.7	17	1	AAC65065	Human bcl genes an
c 191	16.4	2.7	18	1	AAV52559	Unmethylated CpG d
c 192	16.4	2.7	18	1	AAV47681	Unmethylated CpG d
c 193	16.4	2.7	18	1	AAV27733	Immunostimulatory
c 194	16.4	2.7	18	1	AAZ41918	IL-12 secretion in
c 195	16.4	2.7	18	1	AAZ47994	Immune remodeling
c 196	16.4	2.7	18	1	AAZ47655	Parasitic infectio
c 197	16.4	2.7	18	1	AAH50640	Natural killer cel
c 198	16.4	2.7	18	1	AAF98954	Immunostimulatory
c 199	16.4	2.7	18	1	AAF98953	Immunostimulatory
c 200	16.4	2.7	18	1	AAF99277	Immunostimulatory
c 201	16.4	2.7	18	1	ABS77922	Angiogenesis inhib
c 202	16.4	2.7	18	1	ABS77595	Angiogenesis inhib
c 203	16.4	2.7	18	1	ABS77594	Angiogenesis inhib
c 204	16.4	2.7	18	1	ABL39318	Immunostimulatory
c 205	16.4	2.7	18	1	ABL39319	Immunostimulatory
c 206	16.4	2.7	18	1	ABL39321	Immunostimulatory
c 207	16.4	2.7	18	1	AAL39238	Murine Toll-like r
c 208	16.4	2.7	18	1	ABS70577	Dendritic cell sti
c 209	16.4	2.7	18	1	ACF36815	Immunostimulatory
210	16.4	2.7	18	1	ABZ10531	Haematopoietic cel
c 211	16.4	2.7	18	1	ABT16737	bcl-2 PCR primer S
c 212	16.4	2.7	18	1	ACD91427	Immunostimulatory
c 213	16.4	2.7	18	1	ACD99387	Immunostimulatory
c 214	16.4	2.7	18	1	ACD99707	Immunostimulatory
c 215	16.4	2.7	18	1	ACD99386	Immunostimulatory
c 216	16.4	2.7	18	1	ADB36779	Immunostimulatory
c 217	16.4	2.7	18	1	ADB36456	Immunostimulatory
c 218	16.4	2.7	18	1	ADB36455	Immunostimulatory
219	16.4	2.7	18	1	ADC70043	Primer oligo used
c 220	16.4	2.7	18	1	AAD60227	Oligonucleotide 18
221	16.4	2.7	18	1	ADE84393	Human lymphoid cel
222	16	2.6	16	1	AAQ51953	BCL-2 mRNA ribozym
c 223	16	2.6	16	1	ABK90361	Bcl-2-targeting an
c 224	16	2.6	17	1	AAC65070	Human bcl genes an
c 225	15.6	2.5	16	1	AAC65074	Human bcl genes an
c 226	15.4	2.5	17	1	AAX74686	Mouse flt-1 VEGF r
c 227	15.4	2.5	17	1	ABZ65351	Human HER2 DNAzyme
c 228	15.4	2.5	17	1	ABZ65350	Human HER2 DNAzyme
c 229	15.4	2.5	17	1	ACD65630	HCV minus strand D
230	15.4	2.5	17	1	ACD57039	HCV DNAzyme substr
c 231	15	2.4	15	1	ABK90360	Bcl-2-targeting an
c 232	15	2.4	16	1	AAC65071	Human bcl genes an
c 233	14.2	2.3	20	1	AAD15637	Human Bcl-2 protei
234	14	2.3	14	1	AAA95741	PKCalpha primer-pa
c 235	14	2.3	14	1	ABK90359	Bcl-2-targeting an
c 236	13.6	2.2	14	1	AAC65075	Human bcl genes an
c 237	13.6	2.2	36	1	AAQ51961	BCL-2 mRNA ribozym
c 238	13.2	2.1	20	1	AAD15638	Human Bcl-2 protei
239	13	2.1	13	1	AAQ51955	BCL-2 mRNA ribozym
240	13	2.1	13	1	ABF68058	Oligonucleotide SE
c 241	13	2.1	13	1	ABF68059	Oligonucleotide SE
c 242	13	2.1	13	1	ABK90358	Bcl-2-targeting an
c 243	12.6	2.0	20	1	AAD15628	Human Bcl-2 protei
c 244	12.6	2.0	20	1	AAD15630	Human Bcl-2 protei
c 245	12.6	2.0	20	1	AAD15627	Human Bcl-2 protei
c 246	12.6	2.0	20	1	AAD15632	Human Bcl-2 protei
c 247	12.2	2.0	20	1	AAD15639	Human Bcl-2 protei
248	12	2.0	12	1	AAQ51949	BCL-2 mRNA ribozym
c 249	12	2.0	12	1	AAQ94564	RNA "clamp" used t
c 250	12	2.0	12	1	AAF91774	Breast-cancer asso
251	12	2.0	12	1	AAF91702	Breast-cancer asso
c 252	12	2.0	12	1	ABI00109	Oligonucleotide pr

c	253	12	2.0	12	1	ABI75178 Oligonucleotide pr
c	254	12	2.0	12	1	ABH84990 Oligonucleotide pr
c	255	12	2.0	12	1	ABK90357 Bcl-2-targeting an
c	256	12	2.0	12	1	ABX79801 EST polymorphic DN
	257	12	2.0	13	1	ABF38253 Oligonucleotide SE
	258	12	2.0	13	1	ABH40339 Oligonucleotide SE
c	259	12	2.0	13	1	ABH33977 Oligonucleotide SE
	260	12	2.0	13	1	ABF96336 Oligonucleotide SE
c	261	12	2.0	13	1	ABF38252 Oligonucleotide SE
c	262	12	2.0	13	1	ABH40338 Oligonucleotide SE
	263	12	2.0	13	1	ABH11327 Oligonucleotide SE
	264	12	2.0	13	1	ABH33976 Oligonucleotide SE
c	265	12	2.0	13	1	ABF96337 Oligonucleotide SE
c	266	12	2.0	13	1	ABH11326 Oligonucleotide SE
c	267	12	2.0	13	1	ADB98866 Mutated LRP5 exon

ALIGNMENTS

RESULT 1
AAQ51961
ID AAQ51961 standard; RNA; 36 BP.
XX
AC AAQ51961;
XX
DT 25-MAR-2003 (revised)
DT 26-MAY-1994 (first entry)
XX
DE BCL-2 mRNA ribozyme cleavable nucleotide (1997).
XX
KW Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
KW neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
XX
OS Homo sapiens.
XX
PN WO9323057-A1.
XX
PD 25-NOV-1993.
XX
PF 13-MAY-1993; 93WO-US004573.
XX
PR 14-MAY-1992; 92US-00882822.
PR 14-MAY-1992; 92US-00882885.
PR 26-AUG-1992; 92US-00936110.
PR 26-AUG-1992; 92US-00936421.
PR 26-AUG-1992; 92US-00936422.
PR 26-AUG-1992; 92US-00936531.
PR 26-AUG-1992; 92US-00936532.
PR 07-DEC-1992; 92US-00987131.
PR 19-JAN-1993; 93US-00006122.
PR 19-JAN-1993; 93US-00008910.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Draper KG;
XX
DR WPI; 1993-386203/48.
XX
PT New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT with tumours or mRNA expressed from gene encoding multiple drug
PT resistance.
XX
PS Claim 3; Fig 6; 69pp; English.
XX
CC The sequences given in AAQ51825-2266 represent areas of mRNAs which are
CC associated with development or maintenance of chronic myelogenous
CC leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC The full length mRNAs containing these target sequences, encode aberant
CC cellular proteins which are able to control cellular proliferation and
CC are directly linked to a leukemic phenotype. These target sequences are
CC identified by the ribozyme of the invention. The ribozymes is formed in a
CC hammerhead motif, but may also be formed in the motif of a hairpin,
CC hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC may be used to inhibit the development or expression of a transformed
CC phenotype in man and other animals by modulating expression of the
CC corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC and transformed cells elicits inhibition of the transformed state.
CC Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC mechanism of drug resistance used by transformed cells and thus enhances
CC drug therapies for tumours. The ribozymes may also be used to study
CC genetic drift and mutations within cells. (Updated on 25-MAR-2003 to
CC correct PN field.)
XX
SQ Sequence 36 BP; 10 A; 13 C; 8 G; 0 T; 5 U; 0 Other;

  Query Match   5.9%; Score 36; DB 1; Length 36;
  Best Local Similarity   86.1%; Pred. No. 3;
  Matches   31; Conservative   5; Mismatches   0; Indels   0; Gaps   0;

Qy   539 ACCTGAACCGGCACCTGCACACCTGGATCCAGGATA 574
              |||:|||||||||||:|||||||:|||:||||||:|
Db   1 ACCUGAACCGGCACCUGCACACCUGGAUCCAGGAUA 36

RESULT 2
AAQ51951
ID AAQ51951 standard; RNA; 33 BP.
XX
AC AAQ51951;
XX
DT 25-MAR-2003 (revised)
DT 26-MAY-1994 (first entry)
XX
DE BCL-2 mRNA ribozyme cleavable nucleotide (1592).
XX
KW Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
KW neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
XX
OS Homo sapiens.
XX
PN WO9323057-A1.
XX
PD 25-NOV-1993.
XX
PF 13-MAY-1993; 93WO-US004573.
XX
PR 14-MAY-1992; 92US-00882822.
PR 14-MAY-1992; 92US-00882885.
PR 26-AUG-1992; 92US-00936110.
PR 26-AUG-1992; 92US-00936421.
PR 26-AUG-1992; 92US-00936422.
PR 26-AUG-1992; 92US-00936531.
PR 26-AUG-1992; 92US-00936532.
PR 07-DEC-1992; 92US-00987131.
PR 19-JAN-1993; 93US-00006122.
PR 19-JAN-1993; 93US-00008910.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Draper KG;
XX

DR WPI; 1993-386203/48.
XX
PT New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT with tumours or mRNA expressed from gene encoding multiple drug
PT resistance.
XX
PS Claim 3; Fig 6; 69pp; English.
XX
CC The sequences given in AAQ51825-2266 represent areas of mRNAs which are
CC associated with development or maintenance of chronic myelogenous
CC leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC The full length mRNAs containing these target sequences, encode aberant
CC cellular proteins which are able to control cellular proliferation and
CC are directly linked to a leukemic phenotype. These target sequences are
CC identified by the ribozyme of the invention. The ribozymes is formed in a
CC hammerhead motif, but may also be formed in the motif of a hairpin,
CC hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC may be used to inhibit the development or expression of a transformed
CC phenotype in man and other animals by modulating expression of the
CC corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC and transformed cells elicits inhibition of the transformed state.
CC Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC mechanism of drug resistance used by transformed cells and thus enhances
CC drug therapies for tumours. The ribozymes may also be used to study
CC genetic drift and mutations within cells. (Updated on 25-MAR-2003 to
CC correct PN field.)
XX
SQ Sequence 33 BP; 5 A; 16 C; 7 G; 0 T; 5 U; 0 Other;

Query Match 5.4%; Score 33; DB 1; Length 33;
Best Local Similarity 84.8%; Pred. No. 5.5;
Matches 28; Conservative 5; Mismatches 0; Indels 0; Gaps 0;

```
Qy        134 CACCGGGCATCTTCTCCTCCCAGCCCGGGCACA 166
              ||||||||||:|::|:||:|||||||||||||||
Db          1 CACCGGGCAUCUUCUCCUCCCAGCCCGGGCACA 33
```

RESULT 3
ABX13065
ID ABX13065 standard; DNA; 29 BP.
XX
AC ABX13065;
XX
DT 29-MAY-2003 (first entry)
XX
DE Human bcl-2 PCR primer #1.
XX
KW Human; insulin-like growth factor binding protein 5; IGFBP-5; primer; ss;
KW cytostatic; apoptosis; cancer; breast; prostate; ovary; lung; colon; PCR;
KW bcl-2.
XX
OS Homo sapiens.
XX
PN WO2003006029-A1.
XX
PD 23-JAN-2003.
XX
PF 15-JUL-2002; 2002WO-AU000936.
XX
PR 13-JUL-2001; 2001AU-00006331.
XX
PA (UNSY) UNIV SYDNEY.
XX
PI Baxter RC, Butt AJ;
XX
DR WPI; 2003-221646/21.
XX
PT Inducing apoptosis in cancer cell, useful for treating cancer, e.g.
PT breast or prostate cancer comprises increasing the expression of insulin-
PT apoptosis-inducing amount.
XX
PS Example; Page 28; 65pp; English.
XX
CC The invention relates to a method for inducing apoptosis in a cancer cell
CC comprising increasing the expression of insulin-like growth factor
CC binding protein 5 (IGFBP-5) by the cell to an apoptosis-inducing amount.
CC The invention also relates to a method of sensitising a cancer cell to
CC stimuli that induce apoptosis by increasing the expression of IGFBP-5 by
CC the cell, a method of killing a cancer cell by sensitising the cell to
CC stimuli that induce apoptosis and simultaneously exposing the cell to
CC apoptosis-inducing stimuli, or exposing the cell to apoptosis-inducing
CC stimuli and simultaneously or subsequently increasing the expression of
CC IGFBP-5 by the cell to an apoptosis-inducing amount. The methods are
CC useful for treating cancer, such as breast, prostate, ovarian, lung or
CC colon cancer, by inducing apoptosis or killing cancer cells. This
CC sequence represents a bcl-2 PCR primer used in the method of the
CC invention
XX
SQ Sequence 29 BP; 3 A; 3 C; 15 G; 8 T; 0 U; 0 Other;

Query Match 4.7%; Score 29; DB 1; Length 29;
Best Local Similarity 100.0%; Pred. No. 12;
Matches 29; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        456 GTTCGGTGGGGTCATGTGTGTGGAGAGCG 484
              |||||||||||||||||||||||||||||
Db          1 GTTCGGTGGGGTCATGTGTGTGGAGAGCG 29
```

RESULT 4
AAQ51954
ID AAQ51954 standard; RNA; 28 BP.
XX
AC AAQ51954;
XX
DT 25-MAR-2003 (revised)
DT 26-MAY-1994 (first entry)
XX
DE BCL-2 mRNA ribozyme cleavable nucleotide (1729).
XX
KW Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
KW neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
XX
OS Homo sapiens.
XX
PN WO9323057-A1.
XX
PD 25-NOV-1993.
XX
PF 13-MAY-1993; 93WO-US004573.
XX
PR 14-MAY-1992; 92US-00882822.
PR 14-MAY-1992; 92US-00882885.
PR 26-AUG-1992; 92US-00936110.
PR 26-AUG-1992; 92US-00936421.
PR 26-AUG-1992; 92US-00936422.
PR 26-AUG-1992; 92US-00936531.
PR 26-AUG-1992; 92US-00936532.
PR 07-DEC-1992; 92US-00987131.
PR 19-JAN-1993; 93US-00006122.
PR 19-JAN-1993; 93US-00008910.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Draper KG;

DR WPI; 1993-386203/48.
XX
PT New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT with tumours or mRNA expressed from gene encoding multiple drug
PT resistance.
XX
PS Claim 3; Fig 6; 69pp; English.
XX
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CC associated with development or maintenance of chronic myelogenous
CC leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC The full length mRNAs containing these target sequences, encode aberant
CC cellular proteins which are able to control cellular proliferation and
CC are directly linked to a leukemic phenotype. These target sequences are
CC identified by the ribozyme of the invention. The ribozymes is formed in a
CC hammerhead motif, but may also be formed in the motif of a hairpin,
CC hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC may be used to inhibit the development or expression of a transformed
CC phenotype in man and other animals by modulating expression of the
CC corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC and transformed cells elicits inhibition of the transformed state.
CC Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC mechanism of drug resistance used by transformed cells and thus enhances
CC drug therapies for tumours. The ribozymes may also be used to study
CC genetic drift and mutations within cells. (Updated on 25-MAR-2003 to
CC correct PN field.)
XX
SQ Sequence 28 BP; 3 A; 13 C; 7 G; 0 T; 5 U; 0 Other;

Query Match 4.6%; Score 28; DB 1; Length 28;
Best Local Similarity 82.1%; Pred. No. 14;
Matches 23; Conservative 5; Mismatches 0; Indels 0; Gaps 0;

Qy 271 CCTGTGGTCCACCTGGCCCTCCGCCAAG 298
||:|:||:|||||:|||||:||||||||
Db 1 CCUGUGGUCCACCUGGCCCUCCGCCAAG 28

RESULT 5
AAL46663/c
ID AAL46663 standard; DNA; 27 BP.
XX
AC AAL46663;
XX
DT 05-AUG-2002 (first entry)
XX
DE Human bcl-2 mRNA probe.
XX
KW Human; bcl-2; cancer detection; disseminated cancer cell; cytostatic;
KW probe; ss.
XX
OS Homo sapiens.
XX
PN WO200237113-A2.
XX
PD 10-MAY-2002.
XX
PF 05-NOV-2001; 2001WO-EP012786.
XX
PR 03-NOV-2000; 2000DE-01054635.
PR 03-NOV-2000; 2000US-0245854P.
XX
PA (GIES/) GIESING M.
XX
PI Giesing M, Grill H, Boeckmann B, Suchy B;
XX
DR WPI; 2002-426739/45.
XX
PT Clinically validating target from disseminated cancer cells by
PT determining whether status of target determined in cancer cells of
PT individuals correlates with cancer-related information about clinical
PT status of individuals.
XX
PS Example 3; Page 55; 57pp; English.
XX
CC The present invention relates to a method for the clinical validation of
CC a target from disseminated cancer cells, characterised in that for a
CC population of individuals it is determined whether a status of the target
CC determined in disseminated cancer cells of the individuals correlates
CC with at least one cancer-related information about the clinical status of
CC the individuals. The method is useful for clinically validating target
CC from disseminated cancer cells. The present sequence is a probe used to
CC demonstrate the method of the invention
XX
SQ Sequence 27 BP; 6 A; 7 C; 7 G; 7 T; 0 U; 0 Other;

Query Match 4.4%; Score 27; DB 1; Length 27;
Best Local Similarity 100.0%; Pred. No. 17;
Matches 27; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 512 ACAACATCGCCCTGTGGATGACTGAGT 538
||||||||||||||||||||||||||||
Db 27 ACAACATCGCCCTGTGGATGACTGAGT 1

RESULT 6
AAH45302/c
ID AAH45302 standard; DNA; 27 BP.
XX
AC AAH45302;
XX
DT 10-SEP-2001 (first entry)
XX
DE Human Bcl-2 mutagenic primer oligo-5 for S116A substitution.
XX
KW Human; Bcl-2; gene therapy; apoptosis inhibitor; mutant; primer; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200142459-A1.
XX
PD 14-JUN-2001.
XX
PF 07-DEC-2000; 2000WO-JP008667.
XX
PR 09-DEC-1999; 99JP-00350427.
XX
PA (HISM) HISAMITSU PHARM CO LTD.
XX
PI Shibazaki F, Kuma H;
XX
DR WPI; 2001-381681/40.
XX
PT New apoptosis inhibitors, useful for treating apoptosis related
PT disorders.
XX
PS Example 1; Page 11; 43pp; Japanese.
XX
CC The invention relates to an apoptosis inhibitor comprising the amino acid
CC sequence of Bcl-2 protein in which at least one serine residue is
CC substituted by alanine or aspartic acid. The protein has increased
CC apoptosis inhibitory activity compared with the wild type Bcl-2 protein.
CC The mutated Bcl-2 protein is useful in the treatment of disorders caused
CC by apoptosis. The present sequence was used to create a mutant Bcl-2
CC protein of the invention
XX
SQ Sequence 27 BP; 4 A; 8 C; 10 G; 5 T; 0 U; 0 Other;

Query Match 4.1%; Score 25.4; DB 1; Length 27;
Best Local Similarity 96.3%; Pred. No. 25;
Matches 26; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 334 TTCGCCGAGATGTCCAGCCAGCTGCAC 360

```
                    ||||||||||||| ||||||||||||||
Db          27 TTCGCCGAGATGGCCAGCCAGCTGCAC 1


RESULT 7
AAH45300/c
ID   AAH45300 standard; DNA; 27 BP.
XX
AC   AAH45300;
XX
DT   10-SEP-2001  (first entry)
XX
DE   Human Bcl-2 mutagenic primer oligo-3 for S70A substitution.
XX
KW   Human; Bcl-2; gene therapy; apoptosis inhibitor; mutant; primer; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200142459-A1.
XX
PD   14-JUN-2001.
XX
PF   07-DEC-2000; 2000WO-JP008667.
XX
PR   09-DEC-1999;   99JP-00350427.
XX
PA   (HISM ) HISAMITSU PHARM CO LTD.
XX
PI   Shibazaki F,  Kuma H;
XX
DR   WPI; 2001-381681/40.
XX
PT   New apoptosis inhibitors, useful for treating apoptosis related
PT   disorders.
XX
PS   Example 1; Page 10; 43pp; Japanese.
XX
CC   The invention relates to an apoptosis inhibitor comprising the amino acid
CC   sequence of Bcl-2 protein in which at least one serine residue is
CC   substituted by alanine or aspartic acid. The protein has increased
CC   apoptosis inhibitory activity compared with the wild type Bcl-2 protein.
CC   The mutated Bcl-2 protein is useful in the treatment of disorders caused
CC   by apoptosis. The present sequence was used to create a mutant Bcl-2
CC   protein of the invention
XX
SQ   Sequence 27 BP; 2 A; 9 C; 12 G; 4 T; 0 U; 0 Other;

  Query Match             4.1%;  Score 25.4;  DB 1;  Length 27;
  Best Local Similarity   96.3%;  Pred. No. 25;
  Matches   26;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        196 GTCGCCAGGACCTCGCCGCTGCAGACC 222
                ||||||||||||| ||||||||||||||
Db         27 GTCGCCAGGACCGCGCCGCTGCAGACC 1


RESULT 8
AAA73296
ID   AAA73296 standard; DNA; 25 BP.
XX
AC   AAA73296;
XX
DT   06-DEC-2000  (first entry)
XX
DE   Bcl-2 specific gene amplification PCR primer #1.
XX
KW   STAT; signal transducer and activator of transcription; human; cancer;
KW   cell signalling; cytokine; growth factor; oncogenesis; tumour; apoptosis;
KW   cytostatic; tumourigenesis; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200044774-A2.
XX
PD   03-AUG-2000.
XX
PF   27-JAN-2000; 2000WO-US001845.
XX
PR   27-JAN-1999;   99US-0117600P.
XX
PA   (UYSF-) UNIV SOUTH FLORIDA.
XX
PI   Jove R,  Dalton W,  Sebti S,  Yu H,  Heller R,  Jaroszeski M;
XX
DR   WPI; 2000-505964/45.
XX
PT   Administering antagonists of STAT (signal transducer and activator of
PT   transcription) signaling in cells for the treatment of cancers.
XX
PS   Example 9; Page 31; 92pp; English.
XX
CC   The present invention describes methods for inhibiting the growth of (I),
CC   inducing apoptosis in (II), inhibiting tumourigenesis in (III),
CC   inhibiting neoplastic transformation in (IV) cancer cells and for
CC   enhancing the effectiveness of chemo-(IV) and radiotherapies (VI) for the
CC   treatment of cancer. The methods comprise administering an antagonist of
CC   STAT (signal transducer and activator of transcription) signalling. The
CC   methods may be used for inhibiting the growth of cancer cells (I),
CC   inducing apoptosis in cancer cells (II), inhibiting tumourigenesis in
CC   cancer cells (III), inhibiting neoplastic transformation in cancer cells
CC   (IV) and for enhancing the effectiveness of chemo-(IV) and radiotherapies
CC   (VI) for the treatment of cancer. The present sequence represents a
CC   specific gene amplification PCR primer for bcl-2, which is used in an
CC   example from the present invention
XX
SQ   Sequence 25 BP; 3 A; 13 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             4.1%;  Score 25;  DB 1;  Length 25;
  Best Local Similarity   100.0%;  Pred. No. 25;
  Matches   25;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        303 CGACGACTTCTCCCGCCGCTACCGC 327
                |||||||||||||||||||||||||
Db          1 CGACGACTTCTCCCGCCGCTACCGC 25


RESULT 9
ABS63514/c
ID   ABS63514 standard; DNA; 26 BP.
XX
AC   ABS63514;
XX
DT   15-NOV-2002  (first entry)
XX
DE   Human Bcl2 PCR primer #8.
XX
KW   Human; PCR; primer; Bcl2; BclXl; ss; programmed cell death; apoptosis.
XX
OS   Homo sapiens.
XX
PN   WO200240530-A2.
XX
PD   23-MAY-2002.
XX
PF   15-NOV-2001; 2001WO-US045693.
XX
PR   20-NOV-2000; 2000US-00716395.
XX
PA   (ABBO ) ABBOTT LAB.
XX
PI   Fesik SW,  Petros AM,  Yoon H,  Nettesheim DG;
XX
DR   WPI; 2002-490141/52.
XX
PT   New mutant Bcl-2 proteins derived from a wild type human Bcl-2 protein,
```

PT useful in biological assays to identify substances that block the ability
PT of Bcl-2 to inhibit programmed cell death or apoptosis.
XX
PS Example 1; Page 13; 36pp; English.
XX
CC This invention relates to a novel mutant protein which is derived from a
CC wild type human Bcl-2 protein. The mutant is created by replacing a
CC sequence of amino acid residues comprising a flexible loop from the wild
CC type Bcl-2 protein with an amino acid sequence comprising at least two
CC acidic amino acids. The mutant Bcl-2 protein comprises a 166 residue
CC shown in the specification. The invention also comprises an assay for
CC identifying substances that bind to the Bcl-2 protein. The protein
CC sequences of the invention are useful in biological assays to identify
CC substances that block the ability of Bcl-2 to inhibit programmed cell
CC death or apoptosis. The present sequence represents a PCR primer used to
CC amplify the human Bcl2 gene and create the nucleic acid constructs used
CC to produce the Bcl2 mutant proteins of the invention
XX
SQ Sequence 26 BP; 3 A; 8 C; 12 G; 3 T; 0 U; 0 Other;

Query Match 4.0%; Score 24.4; DB 1; Length 26;
Best Local Similarity 96.2%; Pred. No. 30;
Matches 25; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 317 GCCGCTACCGCGGCGACTTCGCCGAG 342
||||||||||| ||||||||||||||
Db 26 GCCGCTACCGCCGCGACTTCGCCGAG 1

RESULT 10
ABS63513
ID ABS63513 standard; DNA; 26 BP.
XX
AC ABS63513;
XX
DT 15-NOV-2002 (first entry)
XX
DE Human Bcl2 PCR primer #7.
XX
KW Human; PCR; primer; Bcl2; BclXl; ss; programmed cell death; apoptosis.
XX
OS Homo sapiens.
XX
PN WO200240530-A2.
XX
PD 23-MAY-2002.
XX
PF 15-NOV-2001; 2001WO-US045693.
XX
PR 20-NOV-2000; 2000US-00716395.
XX
PA (ABBO) ABBOTT LAB.
XX
PI Fesik SW, Petros AM, Yoon H, Nettesheim DG;
XX
DR WPI; 2002-490141/52.
XX
PT New mutant Bcl-2 proteins derived from a wild type human Bcl-2 protein,
PT useful in biological assays to identify substances that block the ability
PT of Bcl-2 to inhibit programmed cell death or apoptosis.
XX
PS Example 1; Page 13; 36pp; English.
XX
CC This invention relates to a novel mutant protein which is derived from a
CC wild type human Bcl-2 protein. The mutant is created by replacing a
CC sequence of amino acid residues comprising a flexible loop from the wild
CC type Bcl-2 protein with an amino acid sequence comprising at least two
CC acidic amino acids. The mutant Bcl-2 protein comprises a 166 residue
CC shown in the specification. The invention also comprises an assay for
CC identifying substances that bind to the Bcl-2 protein. The protein
CC sequences of the invention are useful in biological assays to identify
CC substances that block the ability of Bcl-2 to inhibit programmed cell
CC death or apoptosis. The present sequence represents a PCR primer used to
CC amplify the human Bcl2 gene and create the nucleic acid constructs used
CC to produce the Bcl2 mutant proteins of the invention
XX
SQ Sequence 26 BP; 3 A; 12 C; 8 G; 3 T; 0 U; 0 Other;

Query Match 4.0%; Score 24.4; DB 1; Length 26;
Best Local Similarity 96.2%; Pred. No. 30;
Matches 25; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 317 GCCGCTACCGCGGCGACTTCGCCGAG 342
||||||||||| ||||||||||||||
Db 1 GCCGCTACCGCCGCGACTTCGCCGAG 26

RESULT 11
AAA76092
ID AAA76092 standard; DNA; 24 BP.
XX
AC AAA76092;
XX
DT 08-DEC-2000 (first entry)
XX
DE BCL-2 PCR primer #1.
XX
KW PCR primer; prostate cancer cell line; androgen independent; CL-1; CL-2;
KW LNCaP cell line; beta-actin; Prostate-specific antigen;
KW Prostate specific membrane antigen; Basic fibroblast growth factor;
KW Vascular endothelial cell growth factor; Interleukin-6;
KW Transforming Growth Factor-beta1; Transforming Growth Factor-beta2;
KW Transforming Growth Factor-beta-R; Epidermal growth factor receptor; PSA;
KW AR; PSAM; IL-8; VEGF; bFGF; IL-6; TGF-beta1; TGF-beta2; TGF-beta-R;
KW EGF-R; BCL-2; E-cadherin; p53; PTEN; Caveolin; c-myc; HER-2/neu; p27;
KW Androgen receptor; ss.
XX
OS Homo sapiens.
XX
PN WO200044879-A1.
XX
PD 03-AUG-2000.
XX
PF 28-JAN-2000; 2000WO-US002223.
XX
PR 28-JAN-1999; 99US-0117562P.
XX
PA (REGC) UNIV CALIFORNIA.
XX
PI Belldegrun AS, Tso C;
XX
DR WPI; 2000-499329/44.
XX
PT Androgen independent, aggressively tumorigenic prostate cancer cell lines
PT designated CL-1 and CL-2, useful as tools for studying the cellular and
PT molecular mechanisms of prostate cancer progression.
XX
PS Example 2; Page 30; 90pp; English.
XX
CC The present invention relates to androgen independent, aggressively
CC tumourigenic prostate cancer cell lines, CL-1 and CL-2, which are
CC sublines of the LNCaP cell line. The present sequence is a PCR primer
CC used to amplify a coding sequence expressed by the cell lines. The coding
CC sequences which were amplified in the present invention by the primers in
CC AAA76068 to AAA76107 were: beta-actin, Prostate-specific antigen (PSA),
CC Androgen receptor (AR), Prostate specific membrane antigen (PSAM),
CC Interleukin-8 (IL-8), Vascular endothelial cell growth factor (VEGF),
CC Basic fibroblast growth factor (bFGF), Interleukin-6 (IL-6), Transforming
CC Growth Factor-beta1 (TGF-beta1), Transforming Growth Factor-beta2 (TGF-
CC beta2), Transforming Growth Factor-beta-R (TGF-beta-R), Epidermal growth
CC factor receptor (EGF-R), BCL-2, E-cadherin, p53, PTEN, Caveolin, c-myc,
CC HER-2/neu and p27. RT-PCR was used to monitor changes in coding sequence
CC expression, as the LNCaP parental lines progressed to the CL1 and CL2
CC sublines. The CL-1 and CL-2 sublines can be used as tools for studying
CC the cellular and molecular mechanisms of prostate cancer progression,
CC such as the expression patterns of various transcripts and proteins that

```
CC   are associated with the progression of the non-metastatic, androgen-
CC   dependent state to the metastatic androgen-independent state
XX
SQ   Sequence 24 BP; 2 A; 3 C; 10 G; 9 T; 0 U; 0 Other;

  Query Match             3.9%;  Score 24;  DB 1;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 30;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        450 CTTTGAGTTCGGTGGGGTCATGTG 473
              ||||||||||||||||||||||||
Db          1 CTTTGAGTTCGGTGGGGTCATGTG 24


RESULT 12
AAF82684
ID   AAF82684 standard; DNA; 24 BP.
XX
AC   AAF82684;
XX
DT   18-JUN-2001  (first entry)
XX
DE   Human BCL-2 PCR primer #1.
XX
KW   Human; androgen response element; ARE; cytostatic; gene therapy;
KW   prostate-specific chimeric enhancer; transcriptional regulation;
KW   targeted gene expression; prostate cancer; prostate disorder;
KW   prostate-specific antigen; PSA; BCL-2; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200127256-A2.
XX
PD   19-APR-2001.
XX
PF   13-OCT-2000; 2000WO-US028444.
XX
PR   14-OCT-1999;   99US-0159691P.
PR   15-OCT-1999;   99US-0159730P.
XX
PA   (REGC ) UNIV CALIFORNIA SYSTEM.
XX
PI   Wu L,  Carey MF,  Belldegrun AS;
XX
DR   WPI; 2001-273768/28.
XX
PT   New polynucleotide, useful for treating prostatic cancer, comprises
PT   prostate specific chimeric enhancer and proximal promoter sequence
PT   operably linked to nucleic acid encoding heterologous polypeptide.
XX
PS   Example 5; Page 73; 131pp; English.
XX
CC   The present sequence was used in reverse transcriptase polymerase chain
CC   reaction (RT-PCR) analysis of human prostate cancer cells. The invention
CC   relates to an isolated polynucleotide comprising a prostate-specific
CC   chimeric enhancer (PSE) sequence and a proximal promoter sequence
CC   operably linked to a nucleic acid segment that encodes a heterologous
CC   polypeptide. The PSE contains an ARE and specifically activates
CC   transcription of the nucleic acid segment in a mammalian prostate cell.
CC   The construct is useful for the treatment of a prostate disorder or a
CC   metastasised prostate cancer, such as hyperplasia or hyperproliferation
CC   of prostate cells. It is also useful for directing the tissue-specific
CC   expression of a heterologous polypeptide in a human prostate cell. The
CC   construct may be administered by injection, infection, transformation,
CC   liposome-mediated transfection, polybrene-mediated transfection, receptor
CC   -mediated uptake or Ca-PO4-mediated transformation
XX
SQ   Sequence 24 BP; 2 A; 3 C; 10 G; 9 T; 0 U; 0 Other;

  Query Match             3.9%;  Score 24;  DB 1;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 30;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        450 CTTTGAGTTCGGTGGGGTCATGTG 473
              ||||||||||||||||||||||||
Db          1 CTTTGAGTTCGGTGGGGTCATGTG 24


RESULT 13
ABK52487/c
ID   ABK52487 standard; DNA; 24 BP.
XX
AC   ABK52487;
XX
DT   14-AUG-2002  (first entry)
XX
DE   Fluorescent probe for DNA encoding human bcl-2.
XX
KW   Human; detection of early stage allergic disease; atopic dermatitis;
KW   antiallergic; eosinocyte; eosinophil; bcl-2; probe; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "OTHER= labelled with FAM (6-carboxy-fluorescein)"
FT   modified_base   24
FT                   /*tag=  b
FT                   /mod_base= OTHER
FT                   /note= "OTHER= labelled with TAMRA (6-carboxy-N,N,N',N'-
FT                   tetramethylrhodamine)"
XX
PN   JP2002119281-A.
XX
PD   23-APR-2002.
XX
PF   11-OCT-2000; 2000JP-00311193.
XX
PR   11-OCT-2000; 2000JP-00311193.
XX
PA   (GENO-) GENOX SOYAKU KENKYUSHO KK.
PA   (KOKU-) KOKURITSU SHONI BYOIN INCHO.
XX
DR   WPI; 2002-475327/51.
XX
PT   Detecting early stage allergic diseases with markers of 7 genes of GM-CSF
PT   R-beta, GM-CSF R-alpha, IL-3 R-alpha, PAF R, bcl-2, bcl-x and CD44 in
PT   eosinophils.
XX
PS   Example 1; Page 20; 25pp; Japanese.
XX
CC   The present invention relates to a method for detecting early stage
CC   allergic diseases, particularly atopic dermatitis. The method comprises
CC   determining the expression levels of granulocyte macrophage colony
CC   stimulating factor receptor alpha or beta (GM-CSF R-alpha or -beta),
CC   interleukin 3 receptor alpha (IL-3 R-alpha), bcl-2, bcl-x, platelet
CC   activation factor receptor (PAF R) or CD44 in eosinocytes of a subject to
CC   be tested. The method further comprises comparison with expression levels
CC   in healthy volunteers. The method is useful for the early diagnosis and
CC   treatment of early stage allergic diseases such as atopic dermatitis. The
CC   present sequence represents a probe used in the methods of the present
CC   invention
XX
SQ   Sequence 24 BP; 6 A; 11 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             3.9%;  Score 24;  DB 1;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 30;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        425 TGAACTGGGGGAGGATTGTGGCCT 448
              ||||||||||||||||||||||||
Db         24 TGAACTGGGGGAGGATTGTGGCCT 1
```

RESULT 14
ABN85362/c
ID ABN85362 standard; DNA; 24 BP.
XX
AC ABN85362;
XX
DT 07-OCT-2002 (first entry)
XX
DE Bcl-2 related oligonucleotide #3.
XX
KW Interferon; cytokine; alpha-1 interferon; beta-1 interferon; Bcl-2;
KW gamma-1 interferon; interferon-regulated enzyme; ds-protein kinase;
KW 2',5'-oligoadenylatesynthetase; RNAase L; Fas antigen;
KW gamma-actin cytoskeleton protein; ss.
XX
OS Unidentified.
XX
PN RU2181773-C2.
XX
PD 27-APR-2002.
XX
PF 16-MAR-2000; 2000RU-00106253.
XX
PR 16-MAR-2000; 2000RU-00106253.
XX
PA (AMVI=) A MED VIROLOGY RES INST.
XX
PI Sokolova TM, Uryvaev LV;
XX
DR WPI; 2002-391288/42.
XX
PT Method of assay of human cytokine status at genetic level.
XX
PS Claim 1; Page 7; 10pp; Russian.
XX
CC The present invention relates to a method for estimating transcription
CC levels of genes encoding interferons, interferon-dependent and
CC proliferative cytokines. The method involves determining cytokine mRNA
CC levels, using a combination of RT-PCR with blot- and dot-hybridisation.
CC To illustrate the method, cytokines (alpha-1, beta-1 and gamma-1
CC interferon), interferon-regulated enzymes (2',5'-
CC oligoadenylatesynthetase, RNAase L and ds-protein kinase) and factors of
CC cellular proliferation (Bcl-2, Fas antigen and gamma-actin cytoskeleton
CC protein) were used. The present oligonucleotide was used to illustrate
CC the invention
XX
SQ Sequence 24 BP; 2 A; 15 C; 2 G; 5 T; 0 U; 0 Other;

Query Match 3.9%; Score 24; DB 1; Length 24;
Best Local Similarity 100.0%; Pred. No. 30;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 415 AGGGACGGGGTGAACTGGGGGAGG 438
||||||||||||||||||||||||
Db 24 AGGGACGGGGTGAACTGGGGGAGG 1

RESULT 15
ABK15648
ID ABK15648 standard; DNA; 24 BP.
XX
AC ABK15648;
XX
DT 08-MAY-2002 (first entry)
XX
DE Bcl-2 RNA-DNA hybrid PCR bcl2 primer.
XX
KW RNA-PCR; primer; ss; cytostatic; antibacterial; bcl-2; bcl2 primer;
KW gene therapy; mRNA-cDNA hybrid; gene function inhibition; cancer; PTGS;
KW high throughput screening; D-RNAi; DNA-RNA interference; RdRp; antisense;
KW RNA dependent RNA polymerase; posttranscriptional gene silencing.
XX
OS Homo sapiens.
XX
PN WO200210374-A2.
XX
PD 07-FEB-2002.
XX
PF 02-AUG-2001; 2001WO-US024412.
XX
PR 02-AUG-2000; 2000US-0222479P.
XX
PA (UYSC-) UNIV SOUTHERN CALIFORNIA.
XX
PI Lin S, Chuong C, Widelitz RB;
XX
DR WPI; 2002-188740/24.
XX
PT Generating mRNA-cDNA hybrids for suppressing cancer-related genes, or
PT treating or preventing microbe related genes, comprises thermocycling
PT steps of promoter-linked double-stranded cDNA or RNA synthesis.
XX
PS Example 9; Page 33; 53pp; English.
XX
CC The invention relates to generating mRNA-cDNA hybrids, comprising (a)
CC providing a solution containing a nucleic acid template, one or more
CC primers complementary to the sense conformation of the nucleic acid
CC template, and one or more promoter-linked primers complementary to the
CC antisense conformation of the nucleic acid template, and with an RNA
CC promoter, (b) treating the nucleic acid template with the one of more
CC primers to synthesise a first cDNA strand, (c) treating the first cDNA
CC strand with one or more promoter-linked primers to synthesise a promoter-
CC linked double-stranded nucleic acid, (d) treating the promoter-linked
CC double-stranded nucleic acid to synthesise amplified mRNA fragments and
CC (e) treating the mRNA fragments with one or more primers to synthesise
CC mRNA-cDNA hybrids by reverse transcription of the amplified mRNA
CC fragments. The method is useful for preparing high amounts of pure and
CC specific mRNA-cDNA hybrids for transducing biological effects of interest
CC in vitro as well as in vivo, for inhibiting gene function in prokaryotes
CC and eukaryotes in vivo and in vitro, for suppressing cancer-related
CC genes, in treating or preventing microbe related genes, in studying
CC candidate molecular pathways with systematic knock out of involved
CC molecules, in high throughput screening of gene functions based on
CC microarray analysis, and as a tool in studying gene function in
CC physiological conditions. The mRNA-cDNA hybrids may be used to screen for
CC special gene functions, for manipulating gene expression in vitro, and
CC for designing therapy for genetic diseases in vivo. The cDNA part of a D-
CC RNAi (DNA-RNA interference) can be modified by nucleotide analogue
CC incorporation to increase the stability and effectiveness of transfected
CC probe activities. The RdRp (RNA dependent RNA polymerase) enzyme may
CC provide higher affinity of the mRNA template of a D-RNAi compared to ds-
CC RNA due to lower binding interaction between DNA-RNA duplexes than RNA-
CC RNA duplexes. The cDNA part of a D-RNAi provides further antisense gene
CC knockout activity in addition to the posttranscriptional gene silencing
CC (PTGS) mechanisms of the sense-RNA template, resulting in multiple
CC specific gene interference effects with one probe. The present sequence
CC is a PCR primer used to make a bcl-2 RNA-DNA hybrid in an experiment to
CC demonstrate the method of the invention
XX
SQ Sequence 24 BP; 6 A; 6 C; 8 G; 4 T; 0 U; 0 Other;

Query Match 3.9%; Score 24; DB 1; Length 24;
Best Local Similarity 100.0%; Pred. No. 30;
Matches 24; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 527 GGATGACTGAGTACCTGAACCGGC 550
||||||||||||||||||||||||
Db 1 GGATGACTGAGTACCTGAACCGGC 24

RESULT 16
AAQ51950
ID AAQ51950 standard; RNA; 23 BP.
XX
AC AAQ51950;
XX

```
DT   25-MAR-2003  (revised)
DT   26-MAY-1994  (first entry)
XX
DE   BCL-2 mRNA ribozyme cleavable nucleotide (1522).
XX
KW   Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW   resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW   actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW   adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW   human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW   B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
KW   neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW   hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
XX
OS   Homo sapiens.
XX
PN   WO9323057-A1.
XX
PD   25-NOV-1993.
XX
PF   13-MAY-1993;   93WO-US004573.
XX
PR   14-MAY-1992;   92US-00882822.
PR   14-MAY-1992;   92US-00882885.
PR   26-AUG-1992;   92US-00936110.
PR   26-AUG-1992;   92US-00936421.
PR   26-AUG-1992;   92US-00936422.
PR   26-AUG-1992;   92US-00936531.
PR   26-AUG-1992;   92US-00936532.
PR   07-DEC-1992;   92US-00987131.
PR   19-JAN-1993;   93US-00006122.
PR   19-JAN-1993;   93US-00008910.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Draper KG;
XX
DR   WPI; 1993-386203/48.
XX
PT   New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT   with tumours or mRNA expressed from gene encoding multiple drug
PT   resistance.
XX
PS   Claim 3; Fig 6; 69pp; English.
XX
CC   The sequences given in AAQ51825-2266 represent areas of mRNAs which are
CC   associated with development or maintenance of chronic myelogenous
CC   leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC   lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC   leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC   The full length mRNAs containing these target sequences, encode aberant
CC   cellular proteins which are able to control cellular proliferation and
CC   are directly linked to a leukemic phenotype. These target sequences are
CC   identified by the ribozyme of the invention. The ribozymes is formed in a
CC   hammerhead motif, but may also be formed in the motif of a hairpin,
CC   hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC   may be used to inhibit the development or expression of a transformed
CC   phenotype in man and other animals by modulating expression of the
CC   corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC   and transformed cells elicits inhibition of the transformed state.
CC   Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC   mechanism of drug resistance used by transformed cells and thus enhances
CC   drug therapies for tumours. The ribozymes may also be used to study
CC   genetic drift and mutations within cells. (Updated on 25-MAR-2003 to
CC   correct PN field.)
XX
SQ   Sequence 23 BP; 6 A; 5 C; 9 G; 0 T; 3 U; 0 Other;

  Query Match             3.7%;  Score 23;  DB 1;  Length 23;
  Best Local Similarity   87.0%;  Pred. No. 35;
  Matches   20;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         64 AAGCTGTCGCAGAGGGGCTACGA 86
              ||||:|:|||||||||||:||||
Db          1 AAGCUGUCGCAGAGGGGCUACGA 23


RESULT 17
AAA26255/c
ID   AAA26255 standard; DNA; 23 BP.
XX
AC   AAA26255;
XX
DT   19-JUL-2000  (first entry)
XX
DE   Bcl-2 antisense oligonucleotide sequence SEQ ID NO:2753.
XX
KW   Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW   hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW   gene expression modification; cancer; phosphorothioate; endonuclease;
KW   anticancer; breast cancer; endometrium cancer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9954459-A2.
XX
PD   28-OCT-1999.
XX
PF   19-APR-1999;   99WO-US008547.
XX
PR   20-APR-1998;   98US-0082404P.
PR   23-JUN-1998;   98US-00103636.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Beigelman L,  Mcswiggen JA,  Karpeisky A,  Bellon L;
PI   Reynolds M,  Zwick M,  Jarvis T,  Woolf T,  Haeberli P;
PI   Matulic-Adamic J;
XX
DR   WPI; 2000-013248/01.
XX
PT   New nucleic acids that interact, and optionally cleave, target sequences,
PT   used to treat cancer.
XX
PS   Example 9; Page 106; 148pp; English.
XX
CC   The present invention describes nucleic acids (A) that interact stably
CC   with a target sequence and contain at least one phosphoro(di)thioate
CC   link, having endonuclease activity. (A), and more generally any catalytic
CC   nucleic acid (A') that modulates expression of the oestrogen receptor
CC   gene, are used to treat cancer (particularly of breast or endometrium),
CC   in vivo or by transforming cells ex vivo and implanting treated cells, or
CC   for other conditions associated with levels of oestrogen receptor.
CC   Because of the high selectivity for targeted RNA, (A) can also be used to
CC   correlate inhibition of gene expression with alterations in phenotype,
CC   particularly for identification of therapeutic targets, and as research
CC   reagents (for RNA, in the same way that restriction endonucleases are
CC   used with DNA). The combination of modifications in (A) improves
CC   resistance to nucleases, binding affinity and/or activity. AAA23503 to
CC   AAA24747 represent oestrogen receptor hammerhead ribozyme sequences, and
CC   AAA24748 to AAA25992 represent their corresponding target sequences.
CC   AAA25993 to AAA26105 represent oestrogen receptor hairpin ribozyme
CC   sequences, and AAA26107 to AAA26218 represent their corresponding target
CC   sequences. AAA26219 to AAA26271 represent other ribozyme sequences and
CC   antisense oligonucleotides used in the exemplification of the present
CC   invention
XX
SQ   Sequence 23 BP; 9 A; 9 C; 4 G; 1 T; 0 U; 0 Other;

  Query Match             3.7%;  Score 23;  DB 1;  Length 23;
  Best Local Similarity   100.0%;  Pred. No. 35;
  Matches   23;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        443 TGGCCTTCTTTGAGTTCGGTGGG 465
              |||||||||||||||||||||||
Db         23 TGGCCTTCTTTGAGTTCGGTGGG 1
```

RESULT 18
AAA26253/c
ID AAA26253 standard; DNA; 23 BP.
XX
AC AAA26253;
XX
DT 19-JUL-2000 (first entry)
XX
DE Bcl-2 antisense oligonucleotide sequence SEQ ID NO:2751.
XX
KW Oestrogen receptor; c-raf; k-ras; bcl-2; ribozyme; cleavage;
KW hammerhead ribozyme; hairpin ribozyme; antisense oligonucleotide;
KW gene expression modification; cancer; phosphorothioate; endonuclease;
KW anticancer; breast cancer; endometrium cancer; ss.
XX
OS Homo sapiens.
XX
PN WO9954459-A2.
XX
PD 28-OCT-1999.
XX
PF 19-APR-1999; 99WO-US008547.
XX
PR 20-APR-1998; 98US-0082404P.
PR 23-JUN-1998; 98US-00103636.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Beigelman L, Mcswiggen JA, Karpeisky A, Bellon L;
PI Reynolds M, Zwick M, Jarvis T, Woolf T, Haeberli P;
PI Matulic-Adamic J;
XX
DR WPI; 2000-013248/01.
XX
PT New nucleic acids that interact, and optionally cleave, target sequences,
PT used to treat cancer.
XX
PS Example 9; Page 106; 148pp; English.
XX
CC The present invention describes nucleic acids (A) that interact stably
CC with a target sequence and contain at least one phosphoro(di)thioate
CC link, having endonuclease activity. (A), and more generally any catalytic
CC nucleic acid (A') that modulates expression of the oestrogen receptor
CC gene, are used to treat cancer (particularly of breast or endometrium),
CC in vivo or by transforming cells ex vivo and implanting treated cells, or
CC for other conditions associated with levels of oestrogen receptor.
CC Because of the high selectivity for targeted RNA, (A) can also be used to
CC correlate inhibition of gene expression with alterations in phenotype,
CC particularly for identification of therapeutic targets, and as research
CC reagents (for RNA, in the same way that restriction endonucleases are
CC used with DNA). The combination of modifications in (A) improves
CC resistance to nucleases, binding affinity and/or activity. AAA23503 to
CC AAA24747 represent oestrogen receptor hammerhead ribozyme sequences, and
CC AAA24748 to AAA25992 represent their corresponding target sequences.
CC AAA25993 to AAA26105 represent oestrogen receptor hairpin ribozyme
CC sequences, and AAA26107 to AAA26218 represent their corresponding target
CC sequences. AAA26219 to AAA26271 represent other ribozyme sequences and
CC antisense oligonucleotides used in the exemplification of the present
CC invention
XX
SQ Sequence 23 BP; 9 A; 9 C; 4 G; 1 T; 0 U; 0 Other;

Query Match 3.7%; Score 23; DB 1; Length 23;
Best Local Similarity 100.0%; Pred. No. 35;
Matches 23; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 443 TGGCCTTCTTTGAGTTCGGTGGG 465
||||||||||||||||||||||||
Db 23 TGGCCTTCTTTGAGTTCGGTGGG 1

RESULT 19
AAT36054/c
ID AAT36054 standard; DNA; 24 BP.
XX
AC AAT36054;
XX
DT 20-NOV-1996 (first entry)
XX
DE bcl-2 reverse PCR primer.
XX
KW Cardiovascular disease; differential expression; target gene;
KW pathway gene; fingerprint gene; atherosclerosis; ischaemia; reperfusion;
KW hypertension; restenosis; arterial inflammation; vector; antibody;
KW diagnosis; gene therapy; drug screening; bcl-2;
KW polymerase chain reaction; PCR; primer; ss.
XX
OS Synthetic.
XX
PN WO9624604-A1.
XX
PD 15-AUG-1996.
XX
PF 09-FEB-1996; 96WO-US001883.
XX
PR 10-FEB-1995; 95US-00386844.
PR 07-JUN-1995; 95US-00485573.
XX
PA (MILL-) MILLENNIUM PHARM INC.
XX
PI Falb DA;
XX
DR WPI; 1996-384391/38.
XX
PT New genes differentially expressed in cardiovascular disease - and
PT related vectors, host cells, proteins and antibodies, for diagnosis,
PT monitoring, treatment and drug screening.
XX
PS Example 7; Page 12; 200pp; English.
XX
CC Monocyte RNA from apolipoprotein E (apoE)-deficient and control mice was
CC compared using primers for mouse bcl-2 (AAT36053 and AAT36054) and gamma-
CC actin (AAT36055 and AAT36056). bcl-2 mRNA levels were significantly lower
CC in the apoE-deficient mice (an animal model of atherosclerosis).
CC Regulation of the mouse bcl-2 gene appeared to be regulated by serum
CC cholesterol levels. Similar results were obtd. with the human bcl-2 and
CC glutathione peroxidase genes (see also AAT36057-58). The discovery that
CC certain genes (see also AAT26029-36) are differentially expressed in
CC cardiovascular diseases can be used to develop methods for the diagnosis
CC and treatment of such diseases
XX
SQ Sequence 24 BP; 4 A; 14 C; 1 G; 5 T; 0 U; 0 Other;

Query Match 3.6%; Score 22.4; DB 1; Length 24;
Best Local Similarity 95.8%; Pred. No. 43;
Matches 23; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 417 GGACGGGGTGAACTGGGGGAGGAT 440
||| ||||||||||||||||||||
Db 24 GGATGGGGTGAACTGGGGGAGGAT 1

RESULT 20
AAV81830/c
ID AAV81830 standard; DNA; 24 BP.
XX
AC AAV81830;
XX
DT 11-MAR-1999 (first entry)
XX
DE Mouse bcl-2 reverse primer #1.
XX
KW Human; cardiovascular disease; atherosclerosis; ischaemia; restenosis;
KW reperfusion; hypertension; arterial inflammation; diagnosis; rchd528;

```
KW   primer; ss.
XX
OS   Synthetic.
OS   Mus sp.
XX
PN   US5849578-A.
XX
PD   15-DEC-1998.
XX
PF   15-MAR-1996;   96US-00616844.
XX
PR   10-FEB-1995;   95US-00386844.
PR   07-JUN-1995;   95US-00458873.
PR   09-FEB-1996;   96US-00599654.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Falb DA;
XX
DR   WPI; 1999-069743/06.
XX
PT   DNA encoding rchd528 polypeptide - associated with cardiovascular
PT   disease.
XX
PS   Example; Col 95; 122pp; English.
XX
CC   The present invention describes rchd528 protein. A method has been
CC   developed for producing the rchd528 gene product. The present invention
CC   also describes methods and compositions for the treatment and diagnosis
CC   of cardiovascular diseases, including: atherosclerosis; ischaemia;
CC   restenosis; reperfusion; hypertension; and arterial inflammation. The
CC   present sequence represents a primer used in an example from the present
CC   invention
XX
SQ   Sequence 24 BP; 4 A; 14 C; 1 G; 5 T; 0 U; 0 Other;

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 43;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 21
AAX26250/c
ID   AAX26250 standard; DNA; 24 BP.
XX
AC   AAX26250;
XX
DT   24-MAY-1999  (first entry)
XX
DE   Reverse primer for RT-PCR analysis of mouse bcl-2 mRNA.
XX
KW   Fingerprinting gene; rchd502; transmembrane protein; cardiovascular;
KW   fingerprint/target gene; up-regulated; endothelial cell; shear-stress;
KW   atherosclerosis; ischemia; reperfusion; hypertension; restenosis; human;
KW   RT-PCR; primer; bcl-2; mouse; ss.
XX
OS   Synthetic.
OS   Mus sp.
XX
PN   US5882925-A.
XX
PD   16-MAR-1999.
XX
PF   09-FEB-1996;   96US-00599654.
XX
PR   10-FEB-1995;   95US-00386844.
PR   07-JUN-1995;   95US-00485573.
XX
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Falb DA;
XX
DR   WPI; 1999-214071/18.
XX
PT   New polynucleotides consisting of residues 1-1929 of the rchd502 gene -
PT   are differentially expressed in cardiovascular disease states, and can
PT   therefore be used to treat and diagnose cardiovascular diseases.
XX
PS   Disclosure; Col 9; 121pp; English.
XX
CC   The invention relates to a rchd502 target/fingerprint gene encoding a
CC   transmembrane protein. The invention provides cDNAs contained in plasmids
CC   pFCHD502SF (ATCC 69981) and pFCHD502SJ (ATCC 69982) that encode the
CC   rchd502 polypeptide, and are differentially expressed in cardiovascular
CC   disease states. Cultured genetically engineered host cell containing the
CC   rchd502 polynucleotides in operative association with a nucleotide
CC   regulatory element are used for producing a polypeptide rchd502 gene
CC   product. Identifying that the fingerprint/target gene rchd502 is
CC   differentially expressed (up-regulated) by endothelial cells subjected to
CC   shear-stress, provides a tool for the diagnosis and treatment of
CC   cardiovascular disease e.g. atherosclerosis, ischemia/reperfusion,
CC   hypertension, restenosis. The fingerprint gene is useful for testing the
CC   efficacy of candidate drugs in basic research and in clinical trials and
CC   or imaging of a diseased cardiovascular tissue. The gene may also be used
CC   in screening for ligands of target gene product receptor domains, as well
CC   as antagonists of the ligand-receptor interaction
XX
SQ   Sequence 24 BP; 4 A; 14 C; 1 G; 5 T; 0 U; 0 Other;

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 43;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 22
AAA88587/c
ID   AAA88587 standard; DNA; 24 BP.
XX
AC   AAA88587;
XX
DT   05-FEB-2001  (first entry)
XX
DE   PCR primer for mouse bcl-2 gene.
XX
KW   Mouse; bcl-2 gene; differential expression; atherosclerosis;
KW   cardiovascular disease; diagnosis; therapy; PCR primer; ss.
XX
OS   Mus sp.
XX
PN   US6124433-A.
XX
PD   26-SEP-2000.
XX
PF   06-OCT-1997;   97US-00944496.
XX
PR   10-FEB-1995;   95US-00386844.
PR   07-JUN-1995;   95US-00485573.
PR   09-FEB-1996;   96US-00599654.
XX
PA   (BGHM ) BRIGHAM & WOMENS HOSPITAL.
PA   (MILL-) MILLENNIUM PHARM INC.
XX
PI   Gimbrone MA,  Falb DA;
XX
DR   WPI; 2000-611017/58.
XX
PT   Novel isolated rchd502 polypeptides, differentially expressed in response
PT   to endothelial cell shear stress, used for diagnosis, monitoring clinical
```

PT trails, and treating cardiovascular diseases such as ischemia.
XX
PS Example 7; Col 9; 123pp; English.
XX
CC This oligonucleotide is a reverse PCR primer for the mouse bcl-2 gene. It
CC was used with the forward primer given in AAA88586 in a quantitative RT-
CC PCR analysis of mouse bcl-2 mRNA levels in apoE-deficient mice, a murine
CC model of atherosclerosis. bcl-2 mRNAs were shown to be lower in apoE-
CC deficient mice relative to wild-type controls. The invention provides
CC novel human genes (see AAA88576-83) that are differentially expressed in
CC cardiovascular disease states, and which are of diagnostic and
CC therapeutic use
XX
SQ Sequence 24 BP; 4 A; 14 C; 1 G; 5 T; 0 U; 0 Other;

Query Match 3.6%; Score 22.4; DB 1; Length 24;
Best Local Similarity 95.8%; Pred. No. 43;
Matches 23; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 417 GGACGGGGTGAACTGGGGGAGGAT 440
||| ||||||||||||||||||||||
Db 24 GGATGGGGTGAACTGGGGGAGGAT 1

RESULT 23
AAZ89800/c
ID AAZ89800 standard; cDNA; 24 BP.
XX
AC AAZ89800;
XX
DT 05-MAY-2000 (first entry)
XX
DE Reverse primer for mouse bcl2 amplification.
XX
KW Differentially expressed; cardiovascular disease; atherosclerosis;
KW ischaemia; reperfusion; hypertension; restenosis; arterial inflammation;
KW bcl2; differential display analysis; ss.
XX
OS Mus sp.
XX
PN US6020463-A.
XX
PD 01-FEB-2000.
XX
PF 06-OCT-1997; 97US-00944423.
XX
PR 10-FEB-1995; 95US-00386844.
PR 07-JUN-1995; 95US-00485573.
PR 09-FEB-1996; 96US-00599654.
XX
PA (BGHM) BRIGHAM & WOMENS HOSPITAL.
PA (MILL-) MILLENNIUM PHARM INC.
XX
PI Gimbrone MA, Falb DA;
XX
DR WPI; 2000-146911/13.
XX
PT Marker proteins for the diagnosis of cardiovascular diseases such as
PT atherosclerosis and hypertension, comprising peptide sequences derived
PT from the rchd523 transmembrane protein.
XX
PS Disclosure; Col 9; 121pp; English.
XX
CC This sequence represents a PCR primer used to amplify the mouse bcl2
CC nucleotide sequence. The primer is used in methods for the identification
CC of the marker proteins and differentially expressed genes of the
CC invention. The invention relates to the rchd523 transmembrane polypeptide
CC (see AAY78506) encoded by cDNA contained in the plasmid pfchd523. The
CC rchd523 protein is differentially expressed in diseased cells compared to
CC healthy cells. The rchd523 protein may be used as a marker protein for
CC the diagnosis of cardiovascular diseases including atherosclerosis,
CC ischaemia, reperfusion, hypertension, restenosis and arterial
CC inflammation. rchd523 peptides may be used as antigens in the production
CC of antibodies specific for rchd523. The anti-rchd523 antibodies may then
CC be used in diagnostic assays to quantitate rchd523 peptides in samples
XX
SQ Sequence 24 BP; 4 A; 14 C; 1 G; 5 T; 0 U; 0 Other;

Query Match 3.6%; Score 22.4; DB 1; Length 24;
Best Local Similarity 95.8%; Pred. No. 43;
Matches 23; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 417 GGACGGGGTGAACTGGGGGAGGAT 440
||| ||||||||||||||||||||||
Db 24 GGATGGGGTGAACTGGGGGAGGAT 1

RESULT 24
AAZ88011/c
ID AAZ88011 standard; DNA; 24 BP.
XX
AC AAZ88011;
XX
DT 19-APR-2000 (first entry)
XX
DE Mouse bcl-2 reverse PCR primer SEQ ID NO:11.
XX
KW Cardiovascular disease; diagnosis; atherosclerosis; ischaemia;
KW reperfusion; hypertension; restenosis; arterial inflammation;
KW antiarteriosclerotic; vasotropic; hypotensive; PCR primer; ss.
XX
OS Mus sp.
XX
PN US6018025-A.
XX
PD 25-JAN-2000.
XX
PF 06-OCT-1997; 97US-00944868.
XX
PR 10-FEB-1995; 95US-00386844.
PR 07-JUN-1995; 95US-00485573.
PR 09-FEB-1996; 96US-00599654.
XX
PA (MILL-) MILLENIUM PHARM INC.
PA (BGHM) BRIGHAM & WOMENS HOSPITAL.
XX
PI Falb DA, Gimbrone MA;
XX
DR WPI; 2000-136704/12.
XX
PT Isolated polypeptide for treating and diagnosing cardiovascular disease,
PT such as, atherosclerosis, ischemia/reperfusion, hypertension, restenosis
PT and arterial inflammation.
XX
PS Example; Col 9; 122pp; English.
XX
CC The present invention describes an isolated polypeptide (I) comprising
CC either the amino acid sequence of 1481 residues, given in AAY68447, or an
CC amino acid sequence encoded by the cDNA contained in plasmids pFCHD528A
CC (ATCC 69985), pFCHD528B (ATCC 69986) and pFCHD528C (ATCC 69987). The
CC polypeptide is useful in the treatment and diagnosis of cardiovascular
CC disease, such as, atherosclerosis, ischaemia/reperfusion, hypertension,
CC restenosis and arterial inflammation. AAZ88001 to AAZ88040, and AAY68444
CC to AAY68457 represent sequences used in the exemplification of the
CC present invention
XX
SQ Sequence 24 BP; 4 A; 14 C; 1 G; 5 T; 0 U; 0 Other;

Query Match 3.6%; Score 22.4; DB 1; Length 24;
Best Local Similarity 95.8%; Pred. No. 43;
Matches 23; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 417 GGACGGGGTGAACTGGGGGAGGAT 440
||| ||||||||||||||||||||||
Db 24 GGATGGGGTGAACTGGGGGAGGAT 1

```
RESULT 25
AAQ51952
ID   AAQ51952 standard; RNA; 22 BP.
XX
AC   AAQ51952;
XX
DT   25-MAR-2003  (revised)
DT   26-MAY-1994  (first entry)
XX
DE   BCL-2 mRNA ribozyme cleavable nucleotide (1656).
XX
KW   Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW   resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW   actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW   adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW   human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW   B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
KW   neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW   hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
XX
OS   Homo sapiens.
XX
PN   WO9323057-A1.
XX
PD   25-NOV-1993.
XX
PF   13-MAY-1993;   93WO-US004573.
XX
PR   14-MAY-1992;   92US-00882822.
PR   14-MAY-1992;   92US-00882885.
PR   26-AUG-1992;   92US-00936110.
PR   26-AUG-1992;   92US-00936421.
PR   26-AUG-1992;   92US-00936422.
PR   26-AUG-1992;   92US-00936531.
PR   26-AUG-1992;   92US-00936532.
PR   07-DEC-1992;   92US-00987131.
PR   19-JAN-1993;   93US-00006122.
PR   19-JAN-1993;   93US-00008910.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Draper KG;
XX
DR   WPI; 1993-386203/48.
XX
PT   New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT   with tumours or mRNA expressed from gene encoding multiple drug
PT   resistance.
XX
PS   Claim 3; Fig 6; 69pp; English.
XX
CC   The sequences given in AAQ51825-2266 represent areas of mRNAs which are
CC   associated with development or maintenance of chronic myelogenous
CC   leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC   lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC   leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC   The full length mRNAs containing these target sequences, encode aberant
CC   cellular proteins which are able to control cellular proliferation and
CC   are directly linked to a leukemic phenotype. These target sequences are
CC   identified by the ribozyme of the invention. The ribozymes is formed in a
CC   hammerhead motif, but may also be formed in the motif of a hairpin,
CC   hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC   may be used to inhibit the development or expression of a transformed
CC   phenotype in man and other animals by modulating expression of the
CC   corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC   and transformed cells elicits inhibition of the transformed state.
CC   Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC   mechanism of drug resistance used by transformed cells and thus enhances
CC   drug therapies for tumours. The ribozymes may also be used to study
CC   genetic drift and mutations within cells. (Updated on 25-MAR-2003 to
CC   correct PN field.)
XX
SQ   Sequence 22 BP; 3 A; 10 C; 7 G; 0 T; 2 U; 0 Other;

  Query Match             3.6%;  Score 22;  DB 1;  Length 22;
  Best Local Similarity   90.9%;  Pred. No. 42;
  Matches   20;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        198 CGCCAGGACCTCGCCGCTGCAG 219
              ||||||||||:||||||:||||
Db          1 CGCCAGGACCUCGCCGCUGCAG 22


RESULT 26
AAC65038
ID   AAC65038 standard; DNA; 22 BP.
XX
AC   AAC65038;
XX
DT   12-FEB-2001  (first entry)
XX
DE   Bcl2 RNA RT-PCR primer SEQ ID NO: 21.
XX
KW   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
KW   protein kinase C; PKC; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061810-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009293.
XX
PR   08-APR-1999;   99US-0128377P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD,  Riley TA;
XX
DR   WPI; 2000-679502/66.
XX
PT   Antisense oligonucleotides containing degenerate and/or universal bases,
PT   and modified backbone linkages is useful to target therapeutic genes,
PT   preferably anti-apoptosis or chemoresistance genes.
XX
PS   Example 4; Page 11; 32pp; English.
XX
CC   The present invention is concerned with antisense oligonucleotides
CC   containing a number of degenerate bases and with a modified backbone
CC   which can be used to direct cleavage of target RNA molecules. The use of
CC   degenerate bases reduces the risk of immune activation following
CC   injection into animals, which causes deleterious side effects associated
CC   with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC   C65077 are antisense oligonucleotides and PCR primers used in assays to
CC   demonstrate the effects of the sequences of the invention
XX
SQ   Sequence 22 BP; 2 A; 8 C; 7 G; 5 T; 0 U; 0 Other;

  Query Match             3.6%;  Score 22;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 42;
  Matches   22;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        264 GGTGCCACCTGTGGTCCACCTG 285
              ||||||||||||||||||||||
Db          1 GGTGCCACCTGTGGTCCACCTG 22


RESULT 27
ABN85360
ID   ABN85360 standard; DNA; 21 BP.
XX
AC   ABN85360;
XX
DT   07-OCT-2002  (first entry)
```

```
XX
DE   Bcl-2 related oligonucleotide #1.
XX
KW   Interferon; cytokine; alpha-1 interferon; beta-1 interferon; Bcl-2;
KW   gamma-1 interferon; interferon-regulated enzyme; ds-protein kinase;
KW   2',5'-oligoadenylatesynthetase; RNAase L; Fas antigen;
KW   gamma-actin cytoskeleton protein; ss.
XX
OS   Unidentified.
XX
PN   RU2181773-C2.
XX
PD   27-APR-2002.
XX
PF   16-MAR-2000; 2000RU-00106253.
XX
PR   16-MAR-2000; 2000RU-00106253.
XX
PA   (AMVI=) A MED VIROLOGY RES INST.
XX
PI   Sokolova TM,  Uryvaev LV;
XX
DR   WPI; 2002-391288/42.
XX
PT   Method of assay of human cytokine status at genetic level.
XX
PS   Claim 1; Page 7; 10pp; Russian.
XX
CC   The present invention relates to a method for estimating transcription
CC   levels of genes encoding interferons, interferon-dependent and
CC   proliferative cytokines. The method involves determining cytokine mRNA
CC   levels, using a combination of RT-PCR with blot- and dot-hybridisation.
CC   To illustrate the method, cytokines (alpha-1, beta-1 and gamma-1
CC   interferon), interferon-regulated enzymes (2',5'-
CC   oligoadenylatesynthetase, RNAase L and ds-protein kinase) and factors of
CC   cellular proliferation (Bcl-2, Fas antigen and gamma-actin cytoskeleton
CC   protein) were used. The present oligonucleotide was used to illustrate
CC   the invention
XX
SQ   Sequence 21 BP; 3 A; 10 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             3.4%;  Score 21;  DB 1;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 49;
  Matches   21;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        356 TGCACCTGACGCCCTTCACCG 376
              |||||||||||||||||||||
Db          1 TGCACCTGACGCCCTTCACCG 21


RESULT 28
ABN85361/c
ID   ABN85361 standard; DNA; 21 BP.
XX
AC   ABN85361;
XX
DT   07-OCT-2002  (first entry)
XX
DE   Bcl-2 related oligonucleotide #2.
XX
KW   Interferon; cytokine; alpha-1 interferon; beta-1 interferon; Bcl-2;
KW   gamma-1 interferon; interferon-regulated enzyme; ds-protein kinase;
KW   2',5'-oligoadenylatesynthetase; RNAase L; Fas antigen;
KW   gamma-actin cytoskeleton protein; ss.
XX
OS   Unidentified.
XX
PN   RU2181773-C2.
XX
PD   27-APR-2002.
XX
PF   16-MAR-2000; 2000RU-00106253.
XX
PR   16-MAR-2000; 2000RU-00106253.
XX
PA   (AMVI=) A MED VIROLOGY RES INST.
XX
PI   Sokolova TM,  Uryvaev LV;
XX
DR   WPI; 2002-391288/42.
XX
PT   Method of assay of human cytokine status at genetic level.
XX
PS   Claim 1; Page 7; 10pp; Russian.
XX
CC   The present invention relates to a method for estimating transcription
CC   levels of genes encoding interferons, interferon-dependent and
CC   proliferative cytokines. The method involves determining cytokine mRNA
CC   levels, using a combination of RT-PCR with blot- and dot-hybridisation.
CC   To illustrate the method, cytokines (alpha-1, beta-1 and gamma-1
CC   interferon), interferon-regulated enzymes (2',5'-
CC   oligoadenylatesynthetase, RNAase L and ds-protein kinase) and factors of
CC   cellular proliferation (Bcl-2, Fas antigen and gamma-actin cytoskeleton
CC   protein) were used. The present oligonucleotide was used to illustrate
CC   the invention
XX
SQ   Sequence 21 BP; 2 A; 5 C; 9 G; 5 T; 0 U; 0 Other;

  Query Match             3.4%;  Score 21;  DB 1;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 49;
  Matches   21;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        544 AACCGGCACCTGCACACCTGG 564
              |||||||||||||||||||||
Db         21 AACCGGCACCTGCACACCTGG 1


RESULT 29
AAT33695
ID   AAT33695 standard; DNA; 20 BP.
XX
AC   AAT33695;
XX
DT   04-JUN-1997  (first entry)
XX
DE   Human BCL2 cDNA sense PCR primer.
XX
KW   Sense oriented; genetic suppressor element; GSE; reverse; BCL2; gene;
KW   mediated; suppression; apoptosis; mammalian; cell; inhibition;
KW   sensitisation; cancer; chemotherapeutic agent; increase; treatment;
KW   induction; virus; infection; death; disease; haematopoietic;
KW   neurological; recombinant construct; decrease; expression; anticancer;
KW   non-Hodgkin's lymphoma; B cell malignancy; polymerase chain reaction;
KW   primer; PCR; ss.
XX
OS   Synthetic.
XX
PN   WO9629403-A1.
XX
PD   26-SEP-1996.
XX
PF   14-MAR-1996;   96WO-US003545.
XX
PR   17-MAR-1995;   95US-00405702.
XX
PA   (UNII ) UNIV ILLINOIS FOUND.
XX
PI   Tarasewicz DG,  Schott B,  Holzmayer TA,  Roninson IB;
XX
DR   WPI; 1996-443179/44.
XX
PT   Sense oriented genetic suppressor element - for reversing BCL2 mediated
PT   inhibition of apoptosis, and for sensitising cancer cells against
PT   chemotherapeutic agents.
XX
PS   Example 2; Page 26; 66pp; English.
```

```
XX
CC   The primer pair AAT33695/96 was used for the PCR amplification of human
CC   BCL2 cDNA, which encodes a protein from which a peptide capable of
CC   inhibiting BCL2 gene, or gene product, function in a cell can be derived.
CC   The cDNA sequence encoding the peptide is a sense oriented genetic
CC   suppressor element (GSE) for reversing BCL2 mediated suppression of
CC   apoptosis in a mammalian cell. The GSE and its peptide product can be
CC   used to sensitise cancer cells to chemotherapeutic agents, and to
CC   increase apoptosis, especially for the treatment of cancer, but more
CC   generally to induce virus infected cell death, or to treat apoptosis
CC   related diseases of haematopoietic or neurological cells. The GSE peptide
CC   product or a recombinant construct encoding the GSE can be used to
CC   decrease BCL2 gene expression by exerting an anticancer effect, e.g. in
CC   cases of non-Hodgkin's lymphoma and B cell malignancy
XX
SQ   Sequence 20 BP; 1 A; 4 C; 7 G; 8 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        442 GTGGCCTTCTTTGAGTTCGG 461
              ||||||||||||||||||||
Db          1 GTGGCCTTCTTTGAGTTCGG 20


RESULT 30
AAV19653/c
ID   AAV19653 standard; DNA; 20 BP.
XX
AC   AAV19653;
XX
DT   25-MAR-2003  (revised)
DT   12-JUN-1998  (first entry)
XX
DE   Human bcl-2 antisense oligonucleotide 2.
XX
KW   Antisense oligonucleotide; bcl-2 gene; lymphoma; leukaemia; human;
KW   cancer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   US5734033-A.
XX
PD   31-MAR-1998.
XX
PF   24-MAR-1994;   94US-00217082.
XX
PR   22-DEC-1988;   88US-00288692.
PR   21-FEB-1992;   92US-00840716.
XX
PA   (UYPE-) UNIV PENNSYLVANIA.
XX
PI   Reed J;
XX
DR   WPI; 1998-229881/20.
XX
PT   Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA - useful for
PT   treating cancers, e.g. lymphoma(s) and some leukaemia(s).
XX
PS   Claim 6; Col 3-4; 21pp; English.
XX
CC   This antisense oligonucleotide is complementary to the splice donor site
CC   of the human bcl-2 mRNA. The Bcl-2 antisense oligonucleotides are
CC   phosphorothioate derivatives and can straddle strategic sites such as the
CC   translation initiation site, donor and acceptor splicing sites, or sites
CC   for transportation or degradation. Blocking translation at such strategic
CC   sites prevents the formation of a functional bcl-2 gene product. These
CC   oligonucleotides may be used for treating cancers associated with high
CC   levels of bcl-2 gene expression, especially lymphomas and some
CC   leukaemias. (Updated on 25-MAR-2003 to correct PF field.)
XX
SQ   Sequence 20 BP; 4 A; 10 C; 3 G; 3 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        577 GGAGGCTGGGTAGGTGCATC 596
              ||||||||||||||||||||
Db         20 GGAGGCTGGGTAGGTGCATC 1


RESULT 31
AAV84100/c
ID   AAV84100 standard; DNA; 20 BP.
XX
AC   AAV84100;
XX
DT   20-MAR-2003  (revised)
DT   11-MAR-1999  (first entry)
XX
DE   Antisense oligonucleotide directed against human Bcl-2 RNA.
XX
KW   Antisense oligonucleotide; human Bcl-2 RNA; hyperproliferative disease;
KW   restenosis; fibrosis; psoriasis; tumour; cancer cell;
KW   apoptosis induction; tumour multi-drug resistance reversion; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9856905-A1.
XX
PD   17-DEC-1998.
XX
PF   05-JUN-1998;   98WO-EP003362.
XX
PR   09-JUN-1997;   97GB-00011919.
XX
PA   (NOVS ) NOVARTIS AG.
PA   (NOVS ) NOVARTIS-ERFINDUNGEN VERW GES MBH.
XX
PI   Ziegler A,  Zangemeister-Wittke U,  Fabbro D,  Altmann K;
XX
DR   WPI; 1999-060329/05.
XX
PT   New antisense oligonucleotides for treating hyperproliferative diseases -
PT   comprising a sequence complementary to base positions 1880 to 1899 or the
PT   translation termination codon region of the Bcl-2 gene.
XX
PS   Claim 10; Page 33; 43pp; English.
XX
CC   The present sequence represents an antisense oligonucleotide that is
CC   directed against nucleotides 1890 to 1899 of a RNA deriving from the gene
CC   encoding human Bcl-2 protein. The antisense oligonucleotide can be used
CC   for inhibiting the expression of human Bcl-2 in the treatment of
CC   hyperproliferative diseases such as restenosis, fibrosis, psoriasis or
CC   tumours. In particular the antisense oligonucleotide is capable of
CC   killing cancer cells by induction of apoptosis or reverting multi-drug
CC   resistance of tumours. The oligonucleotide can also be used as diagnostic
CC   agent. (Updated on 20-MAR-2003 to correct PA field.)
XX
SQ   Sequence 20 BP; 4 A; 11 C; 1 G; 4 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        422 GGGTGAACTGGGGGAGGATT 441
              ||||||||||||||||||||
Db         20 GGGTGAACTGGGGGAGGATT 1


RESULT 32
AAX27537
```

```
ID   AAX27537 standard; RNA; 20 BP.
XX
AC   AAX27537;
XX
DT   27-MAY-1999  (first entry)
XX
DE   Synthetic RNA sequence produced by the method of the invention.
XX
KW   Silyloxymethyl; phosphonate; silyloxymethyl halide; diagnosis; ss;
KW   cyanoethyl phosphoramidate coupling; isomerisation; steric hindrance.
XX
OS   Synthetic.
XX
PN   WO9909044-A1.
XX
PD   25-FEB-1999.
XX
PF   17-AUG-1998;   98WO-EP005215.
XX
PR   18-AUG-1997;   97CH-00001931.
XX
PA   (PITS/) PITSCH S.
PA   (WEIS/) WEISS P A.
PA   (JENN/) JENNY L.
XX
PI   Pitsch S,  Weiss PA,  Jenny L;
XX
DR   WPI; 1999-180963/15.
XX
PT   2-Silyloxymethyl ribonucleosides and their phosphonate derivatives - have
PT   high purity, use in machine synthesis of ribonucleic acids, enable longer
PT   oligonucleotide chain construction, and larger amounts.
XX
PS   Example 7; Page 26; 38pp; English.
XX
CC   The invention relates to silyloxymethyl protected D- or L-ribonucleosides
CC   and their phosphonates (I), and silyloxymethyl halides (II). (I) are
CC   intermediates for synthesis of RNA-oligonucleotides with predetermined
CC   nucleotide sequence, particularly by machine synthesis. The groups
CC   specified above, apart from those on silyl, are those particularly for
CC   the cyanoethyl phosphoramidate coupling. Uses of the oligoribonucleotide
CC   products in diagnosis, therapy, and as research tools, are well known,
CC   and are not dealt with in detail. (II) is an intermediate for (I). The
CC   silyloxymethyl halide reagent is easy to prepare, and yields are high.
CC   Introduction of the silyloxymethyl group into the ribonucleoside is
CC   simple and rapid, and the acetal bond formed does not migrate,
CC   eliminating particularly the prior art problem of 2' to 3' isomerisation.
CC   The methylenedioxy group spacer between the silyl group and nucleoside
CC   ring results in less steric hindrance than bulky direct silyloxy
CC   linkages, enabling first, a range of choices for the silyl substituents,
CC   to provide, e.g., acid or base stability; and second, higher yields in
CC   coupling. Purer products are therefore obtained than in prior art,
CC   enabling larger quantities and longer chains of oligoribonucleotides to
CC   be synthesised successfully, and in shorter times
XX
SQ   Sequence 20 BP; 4 A; 1 C; 11 G; 0 T; 4 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   80.0%;  Pred. No. 58;
  Matches   16;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        422 GGGTGAACTGGGGGAGGATT 441
              |||:||||:||||||||::
Db          1 GGGUGAACUGGGGGAGGAUU 20


RESULT 33
AAZ37380
ID   AAZ37380 standard; DNA; 20 BP.
XX
AC   AAZ37380;
XX
DT   04-FEB-2000  (first entry)
XX
DE   PCR primer for human Bcl-2 gene.
XX
KW   Bcl-2; human; PCR primer; adenoviral vector; anti-apoptotic gene;
KW   ischaemia; reperfusion injury; liver; organ preservation;
KW   endothelial cell cryoprotection; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9955382-A1.
XX
PD   04-NOV-1999.
XX
PF   29-APR-1999;   99WO-US009412.
XX
PR   29-APR-1998;   98US-0083434P.
XX
PA   (UABR-) UAB RES FOUND.
XX
PI   Bilbao G,  Curiel DT,  Contreras JL;
XX
DR   WPI; 2000-023269/02.
XX
PT   Adenoviral vector encoding anti-apoptotic Bcl-2 gene useful for
PT   cytoprotection and in gene therapy.
XX
PS   Example 9; Page 26; 89pp; English.
XX
CC   This sequence represents a PCR primer for the human Bcl-2 gene. The
CC   invention relates to an adenoviral vector encoding an anti-apoptotic Bcl-
CC   2 gene. The adenoviral vector may be used to reduce ischaemia/reperfusion
CC   injury in the liver, improve organ preservation, cytoprotect endothelial
CC   cells or pancreatic islet cells during cold preservation, or enhance or
CC   prolong the expression of a transgene. The co-expression of Bcl-2 with a
CC   transgene mediated a significant reduction in apoptosis and necrosis
CC   following adenovirus mediated gene transfer, and an enhancement of
CC   transgene expression (up to 2 log)
XX
SQ   Sequence 20 BP; 4 A; 1 C; 11 G; 4 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         86 AGTGGGATGCGGGAGATGTG 105
              ||||||||||||||||||||
Db          1 AGTGGGATGCGGGAGATGTG 20


RESULT 34
AAD15629
ID   AAD15629 standard; DNA; 20 BP.
XX
AC   AAD15629;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #3.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
```

```
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 0 A; 9 C; 10 G; 1 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        236 GCGCCGCCGCGGGGCCTGCG 255
              ||||||||||||||||||||
Db          1 GCGCCGCCGCGGGGCCTGCG 20


RESULT 35
AAD15639
ID   AAD15639 standard; DNA; 20 BP.
XX
AC   AAD15639;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #13.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 2 A; 5 C; 11 G; 2 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         96 GGGAGATGTGGGCGCCGCGC 115
              ||||||||||||||||||||
Db          1 GGGAGATGTGGGCGCCGCGC 20


RESULT 36
AAD15640
ID   AAD15640 standard; DNA; 20 BP.
XX
AC   AAD15640;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #14.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 1 A; 9 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        242 CCGCGGGGCCTGCGCTCAGC 261
              ||||||||||||||||||||
Db          1 CCGCGGGGCCTGCGCTCAGC 20
```

```
RESULT 37
AAD15642
ID   AAD15642 standard; DNA; 20 BP.
XX
AC   AAD15642;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #16.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 1 A; 9 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        244 GCGGGGCCTGCGCTCAGCCC 263
              ||||||||||||||||||||
Db          1 GCGGGGCCTGCGCTCAGCCC 20


RESULT 38
AAD15628
ID   AAD15628 standard; DNA; 20 BP.
XX
AC   AAD15628;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #2.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 0 A; 9 C; 10 G; 1 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        235 GGCGCCGCCGCGGGGCCTGC 254
              ||||||||||||||||||||
Db          1 GGCGCCGCCGCGGGGCCTGC 20


RESULT 39
AAD15631
ID   AAD15631 standard; DNA; 20 BP.
XX
AC   AAD15631;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #5.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
```

```
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 0 A; 10 C; 9 G; 1 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        237 CGCCGCCGCGGGGGCCTGCGC 256
              ||||||||||||||||||||
Db          1 CGCCGCCGCGGGGGCCTGCGC 20


RESULT 40
AAD15641
ID   AAD15641 standard; DNA; 20 BP.
XX
AC   AAD15641;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #15.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 1 A; 9 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        243 CGCGGGGCCTGCGCTCAGCC 262
              ||||||||||||||||||||
Db          1 CGCGGGGCCTGCGCTCAGCC 20


RESULT 41
AAD15643
ID   AAD15643 standard; DNA; 20 BP.
XX
AC   AAD15643;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #17.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 1 A; 9 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        245 CGGGGCCTGCGCTCAGCCCG 264
              ||||||||||||||||||||
Db          1 CGGGGCCTGCGCTCAGCCCG 20


RESULT 42
AAD15630
ID   AAD15630 standard; DNA; 20 BP.
XX
AC   AAD15630;
```

```
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #4.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 0 A; 11 C; 9 G; 0 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        232 CCCGGCGCCGCCGCGGGGCC 251
              ||||||||||||||||||||
Db          1 CCCGGCGCCGCCGCGGGGCC 20


RESULT 43
AAD15633
ID   AAD15633 standard; DNA; 20 BP.
XX
AC   AAD15633;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #7.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 0 A; 10 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        239 CCGCCGCGGGGCCTGCGCTC 258
              ||||||||||||||||||||
Db          1 CCGCCGCGGGGCCTGCGCTC 20


RESULT 44
AAD15637
ID   AAD15637 standard; DNA; 20 BP.
XX
AC   AAD15637;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #11.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
```

```
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 2 A; 5 C; 11 G; 2 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         94 GCGGGAGATGTGGGCGCCGC 113
               ||||||||||||||||||||
Db          1 GCGGGAGATGTGGGCGCCGC 20


RESULT 45
AAD15635
ID   AAD15635 standard; DNA; 20 BP.
XX
AC   AAD15635;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #9.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 1 A; 9 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        240 CGCCGCGGGGCCTGCGCTCA 259
                ||||||||||||||||||||
Db          1 CGCCGCGGGGCCTGCGCTCA 20


RESULT 46
AAD15634
ID   AAD15634 standard; DNA; 20 BP.
XX
AC   AAD15634;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #8.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 1 A; 8 C; 9 G; 2 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        241 GCCGCGGGGCCTGCGCTCAG 260
                ||||||||||||||||||||
Db          1 GCCGCGGGGCCTGCGCTCAG 20


RESULT 47
AAD15646
ID   AAD15646 standard; DNA; 20 BP.
XX
AC   AAD15646;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #20.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
```

OS Homo sapiens.
XX
PN WO200161030-A2.
XX
PD 23-AUG-2001.
XX
PF 14-FEB-2001; 2001WO-US004732.
XX
PR 14-FEB-2000; 2000US-00504653.
XX
PA (BOLL/) BOLLON A P.
PA (GRAY/) GRAY D M.
PA (JUSE/) JU-SEOG L.
XX
PI Bollon AP, Gray DM, Ju-Seog L;
XX
DR WPI; 2001-529916/58.
XX
PT Selecting optimal subsequence antisense targets for inhibition of mRNA
PT expression of target mRNA for the therapeutic treatment of genetic
PT disease.
XX
PS Example 9; Page 28; 87pp; English.
XX
CC The invention relates to a method for selecting optimal subsequence
CC antisense targets. The method involves preparing an antisense
CC oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC sequences, as well as antisense oligonucleotides capable of binding DNA.
CC The antisense and antigene libraries are useful for preparing therapeutic
CC agents for the treatment of genetic disease. The present DNA sequence is
CC human Bcl-2 protein target DNA related to the invention. Note: The
CC present sequence is shown as DNA in the specification; however, in vivo,
CC this target sequence would be mRNA
XX
SQ Sequence 20 BP; 2 A; 6 C; 10 G; 2 T; 0 U; 0 Other;

Query Match 3.3%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 58;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 97 GGAGATGTGGGCGCCGCGCC 116
||||||||||||||||||||
Db 1 GGAGATGTGGGCGCCGCGCC 20

RESULT 48
AAD15627
ID AAD15627 standard; DNA; 20 BP.
XX
AC AAD15627;
XX
DT 15-NOV-2001 (first entry)
XX
DE Human Bcl-2 protein target DNA #1.
XX
KW Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS Homo sapiens.
XX
PN WO200161030-A2.
XX
PD 23-AUG-2001.
XX
PF 14-FEB-2001; 2001WO-US004732.
XX
PR 14-FEB-2000; 2000US-00504653.
XX
PA (BOLL/) BOLLON A P.
PA (GRAY/) GRAY D M.
PA (JUSE/) JU-SEOG L.
XX
PI Bollon AP, Gray DM, Ju-Seog L;
XX
DR WPI; 2001-529916/58.
XX
PT Selecting optimal subsequence antisense targets for inhibition of mRNA
PT expression of target mRNA for the therapeutic treatment of genetic
PT disease.
XX
PS Example 9; Page 28; 87pp; English.
XX
CC The invention relates to a method for selecting optimal subsequence
CC antisense targets. The method involves preparing an antisense
CC oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC sequences, as well as antisense oligonucleotides capable of binding DNA.
CC The antisense and antigene libraries are useful for preparing therapeutic
CC agents for the treatment of genetic disease. The present DNA sequence is
CC human Bcl-2 protein target DNA related to the invention. Note: The
CC present sequence is shown as DNA in the specification; however, in vivo,
CC this target sequence would be mRNA
XX
SQ Sequence 20 BP; 0 A; 9 C; 10 G; 1 T; 0 U; 0 Other;

Query Match 3.3%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 58;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 234 CGGCGCCGCCGCGGGGCCTG 253
||||||||||||||||||||
Db 1 CGGCGCCGCCGCGGGGCCTG 20

RESULT 49
AAD15638
ID AAD15638 standard; DNA; 20 BP.
XX
AC AAD15638;
XX
DT 15-NOV-2001 (first entry)
XX
DE Human Bcl-2 protein target DNA #12.
XX
KW Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS Homo sapiens.
XX
PN WO200161030-A2.
XX
PD 23-AUG-2001.
XX
PF 14-FEB-2001; 2001WO-US004732.
XX
PR 14-FEB-2000; 2000US-00504653.
XX
PA (BOLL/) BOLLON A P.
PA (GRAY/) GRAY D M.
PA (JUSE/) JU-SEOG L.
XX
PI Bollon AP, Gray DM, Ju-Seog L;
XX
DR WPI; 2001-529916/58.
XX
PT Selecting optimal subsequence antisense targets for inhibition of mRNA
PT expression of target mRNA for the therapeutic treatment of genetic
PT disease.
XX
PS Example 9; Page 28; 87pp; English.
XX
CC The invention relates to a method for selecting optimal subsequence
CC antisense targets. The method involves preparing an antisense
CC oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC sequences, as well as antisense oligonucleotides capable of binding DNA.
CC The antisense and antigene libraries are useful for preparing therapeutic
CC agents for the treatment of genetic disease. The present DNA sequence is
CC human Bcl-2 protein target DNA related to the invention. Note: The
CC present sequence is shown as DNA in the specification; however, in vivo,

```
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 2 A; 5 C; 11 G; 2 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         95 CGGGAGATGTGGGCGCCGCG 114
              ||||||||||||||||||||
Db          1 CGGGAGATGTGGGCGCCGCG 20


RESULT 50
AAD15632
ID   AAD15632 standard; DNA; 20 BP.
XX
AC   AAD15632;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #6.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 0 A; 10 C; 9 G; 1 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        233 CCGGCGCCGCCGCGGGGCCT 252
              ||||||||||||||||||||
Db          1 CCGGCGCCGCCGCGGGGCCT 20


RESULT 51
AAD15636
ID   AAD15636 standard; DNA; 20 BP.
XX
AC   AAD15636;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #10.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 1 A; 8 C; 9 G; 2 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        246 GGGGCCTGCGCTCAGCCCGG 265
              ||||||||||||||||||||
Db          1 GGGGCCTGCGCTCAGCCCGG 20


RESULT 52
ABK90266/c
ID   ABK90266 standard; DNA; 20 BP.
XX
AC   ABK90266;
XX
DT   21-OCT-2002  (first entry)
XX
DE   Bcl-2-targeting antisense oligonucleotide #3.
XX
KW   Antisense; ss; probe; Bcl-2; cell proliferative disorder; cancer; CRE;
KW   cAMP response element; bacterial infection; viral infection;
KW   inflammation; anaphylaxis; allergy; arthritis; asthma; cytostatic;
KW   autoimmune disorder; parasitic infection; virucide; hyperplasia;
KW   tumourigenesis; hepatitis B infection; human.
XX
OS   Homo sapiens.
XX
PN   WO200257480-A2.
```

XX
PD 25-JUL-2002.
XX
PF 22-JAN-2002; 2002WO-US001967.
XX
PR 22-JAN-2001; 2001US-0263244P.
XX
PA (GENT-) GENTA INC.
XX
PI Klem RE;
XX
DR WPI; 2002-590754/63.
XX
PT Hybrid oligomer comprises a cyclic AMP response element sequence and a
PT sequence that hybridizes to the bcl-2 pre-mRNA or mRNA useful for
PT preventing or treating cell-proliferative disorders e.g., cancer.
XX
PS Disclosure; Page 13; 78pp; English.
XX
CC The invention relates to a hybrid oligomer comprising a cyclic AMP
CC response element (CRE) sequence and a sequence that hybridises to the bcl
CC -2 pre-mRNA or mRNA. Also included are: (1) inhibiting the growth of
CC cancer cells in vitro, which comprises contacting the cancer cells with a
CC hybrid oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer;
CC (2) treating or preventing cancer in a human, which comprises
CC administering a hybrid oligomer or a bcl-2 antisense oligomer and a CRE
CC decoy oligomer; and (3) a pharmaceutical composition comprising a hybrid
CC oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer and a
CC carrier. The pharmaceutical composition of the invention is useful for
CC preventing or treating cell-proliferative disorders e.g., cancer,
CC hyperplasia or tumourigenesis and also bacterial infection, viral
CC infection, inflammation, anaphylaxis, allergy, arthritis, asthma,
CC autoimmune disorders and parasitic infection. The CRE decoy oligomer and
CC bcl-2 antisense oligomer are also useful for preventing or treating
CC hepatitis B virus infection. The hybrid oligomers can also be used for
CC screening candidate transcription factors or other molecules e.g., gene
CC regulatory proteins or for diagnostic assays. The present sequence is a
CC Bcl-2 antisense oligonucleotide
XX
SQ Sequence 20 BP; 4 A; 10 C; 3 G; 3 T; 0 U; 0 Other;

Query Match 3.3%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 58;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 577 GGAGGCTGGGTAGGTGCATC 596
||||||||||||||||||||
Db 20 GGAGGCTGGGTAGGTGCATC 1

RESULT 53
ABQ78524/c
ID ABQ78524 standard; DNA; 20 BP.
XX
AC ABQ78524;
XX
DT 25-NOV-2002 (first entry)
XX
DE Antisense oligodeoxynucleotide of the human bcl-2 gene.
XX
KW Antisense oligonucleotide; B cell lymphoma/leukemia-2 gene; bcl-2 gene;
KW cancer; lymphoma; leukemia; chemotherapeutic agent; bone marrow purging;
KW autoimmune disease; ss.
XX
OS Homo sapiens.
XX
PN US6414134-B1.
XX
PD 02-JUL-2002.
XX
PF 28-NOV-2000; 2000US-00724426.
XX
PR 22-DEC-1988; 88US-00288692.
PR 21-FEB-1992; 92US-00840716.
PR 20-SEP-1993; 93US-00124256.
PR 05-JUN-1995; 95US-00465485.
PR 18-MAY-1998; 98US-00080285.
PR 17-AUG-1999; 99US-00375514.
XX
PA (UYPE-) UNIV PENNSYLVANIA.
XX
PI Reed JC;
XX
DR WPI; 2002-641579/69.
XX
PT Novel antisense oligonucleotide complementary to B cell lymphoma/leukemia
PT -2 mRNA, useful for inhibiting cancer cell growth, for treating
PT autoimmune disorders, and for ex vivo bone marrow purging.
XX
PS Example 1; Col 7-8; 41pp; English.
XX
CC The present sequence represents an antisense oligonucleotide
CC complementary to B cell lymphoma/leukemia-2 (bcl-2) mRNA. The antisense
CC oligonucleotide is useful for inhibiting cancer cell (lymphoma or
CC leukemia cells) growth, for increasing the sensitivity of cancer cells to
CC cancer chemotherapeutic agents, or for inducing cancer cell death alone
CC or in combination with any one or more cancer chemotherapeutic agents. It
CC is also useful for reducing the bcl-2 gene expression or impairing bcl-2
CC protein function, for ex vivo bone marrow purging, for removing residual
CC malignant cells from the bone marrow, for inhibiting cancer of neoplastic
CC cell growth, and for treating autoimmune disease
XX
SQ Sequence 20 BP; 4 A; 10 C; 3 G; 3 T; 0 U; 0 Other;

Query Match 3.3%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 58;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 577 GGAGGCTGGGTAGGTGCATC 596
||||||||||||||||||||
Db 20 GGAGGCTGGGTAGGTGCATC 1

RESULT 54
ABK52485/c
ID ABK52485 standard; DNA; 20 BP.
XX
AC ABK52485;
XX
DT 14-AUG-2002 (first entry)
XX
DE PCR primer #1 for DNA encoding human bcl-2.
XX
KW Human; detection of early stage allergic disease; atopic dermatitis;
KW antiallergic; eosinocyte; eosinophil; bcl-2; PCR; primer; ss.
XX
OS Homo sapiens.
XX
PN JP2002119281-A.
XX
PD 23-APR-2002.
XX
PF 11-OCT-2000; 2000JP-00311193.
XX
PR 11-OCT-2000; 2000JP-00311193.
XX
PA (GENO-) GENOX SOYAKU KENKYUSHO KK.
PA (KOKU-) KOKURITSU SHONI BYOIN INCHO.
XX
DR WPI; 2002-475327/51.
XX
PT Detecting early stage allergic diseases with markers of 7 genes of GM-CSF
PT R-beta, GM-CSF R-alpha, IL-3 R-alpha, PAF R, bcl-2, bcl-x and CD44 in
PT eosinophils.
XX
PS Example 1; Page 19; 25pp; Japanese.

```
XX
CC   The present invention relates to a method for detecting early stage
CC   allergic diseases, particularly atopic dermatitis. The method comprises
CC   determining the expression levels of granulocyte macrophage colony
CC   stimulating factor receptor alpha or beta (GM-CSF R-alpha or -beta),
CC   interleukin 3 receptor alpha (IL-3 R-alpha), bcl-2, bcl-x, platelet
CC   activation factor receptor (PAF R) or CD44 in eosinocytes of a subject to
CC   be tested. The method further comprises comparison with expression levels
CC   in healthy volunteers. The method is useful for the early diagnosis and
CC   treatment of early stage allergic diseases such as atopic dermatitis. The
CC   present sequence represents a PCR primer used in the methods of the
CC   present invention
XX
SQ   Sequence 20 BP; 7 A; 9 C; 2 G; 2 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        453 TGAGTTCGGTGGGGTCATGT 472
              ||||||||||||||||||||
Db         20 TGAGTTCGGTGGGGTCATGT 1


RESULT 55
ABK52486
ID   ABK52486 standard; DNA; 20 BP.
XX
AC   ABK52486;
XX
DT   14-AUG-2002  (first entry)
XX
DE   PCR primer #2 for DNA encoding human bcl-2.
XX
KW   Human; detection of early stage allergic disease; atopic dermatitis;
KW   antiallergic; eosinocyte; eosinophil; bcl-2; PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   JP2002119281-A.
XX
PD   23-APR-2002.
XX
PF   11-OCT-2000; 2000JP-00311193.
XX
PR   11-OCT-2000; 2000JP-00311193.
XX
PA   (GENO-) GENOX SOYAKU KENKYUSHO KK.
PA   (KOKU-) KOKURITSU SHONI BYOIN INCHO.
XX
DR   WPI; 2002-475327/51.
XX
PT   Detecting early stage allergic diseases with markers of 7 genes of GM-CSF
PT   R-beta, GM-CSF R-alpha, IL-3 R-alpha, PAF R, bcl-2, bcl-x and CD44 in
PT   eosinophils.
XX
PS   Example 1; Page 19; 25pp; Japanese.
XX
CC   The present invention relates to a method for detecting early stage
CC   allergic diseases, particularly atopic dermatitis. The method comprises
CC   determining the expression levels of granulocyte macrophage colony
CC   stimulating factor receptor alpha or beta (GM-CSF R-alpha or -beta),
CC   interleukin 3 receptor alpha (IL-3 R-alpha), bcl-2, bcl-x, platelet
CC   activation factor receptor (PAF R) or CD44 in eosinocytes of a subject to
CC   be tested. The method further comprises comparison with expression levels
CC   in healthy volunteers. The method is useful for the early diagnosis and
CC   treatment of early stage allergic diseases such as atopic dermatitis. The
CC   present sequence represents a PCR primer used in the methods of the
CC   present invention
XX
SQ   Sequence 20 BP; 4 A; 4 C; 8 G; 4 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        401 TGGAGGAGCTCTTCAGGGAC 420
              ||||||||||||||||||||
Db          1 TGGAGGAGCTCTTCAGGGAC 20


RESULT 56
ABL54151/c
ID   ABL54151 standard; DNA; 20 BP.
XX
AC   ABL54151;
XX
DT   12-JUL-2002  (first entry)
XX
DE   Bcl-2 antisense oligonucleotide.
XX
KW   B cell lymphoma/leukaemia-2; bcl-2; oncogene; antisense; lymphoma;
KW   leukaemia; colon carcinoma; rectal carcinoma; pancreatic cancer;
KW   breast cancer; ovarian cancer; prostate cancer; renal cell carcinoma;
KW   hepatoma; bile duct carcinoma; choriocarcinoma; cervical cancer;
KW   testicular cancer; lung carcinoma; bladder carcinoma; melanoma;
KW   head and neck cancer; brain cancer; cytostatic; human; gene therapy; ss.
XX
OS   Homo sapiens.
XX
PN   WO200217852-A2.
XX
PD   07-MAR-2002.
XX
PF   23-AUG-2001; 2001WO-US026414.
XX
PR   25-AUG-2000; 2000US-0227970P.
PR   29-SEP-2000; 2000US-0237009P.
PR   10-NOV-2000; 2000US-00709170.
XX
PA   (GENT-) GENTA INC.
XX
PI   Warrel RP,  Klem RE,  Fingert H;
XX
DR   WPI; 2002-371796/40.
XX
PT   Treating or preventing cancer, tumors and carcinomas, comprises
PT   administering B cell lymphoma/leukemia-2 antisense oligonucleotide at
PT   high doses for short period for time with one or more cancer
PT   therapeutics.
XX
PS   Disclosure; Page 53; 64pp; English.
XX
CC   The present sequence is that of a B cell lymphoma/leukaemia-2 (bcl-2)
CC   antisense oligonucleotide. The present invention is directed to the use
CC   of bcl-2 antisense oligomers, particularly G3139 (see ABL54148), to treat
CC   and prevent bcl-2 related disorders. Administration at high doses results
CC   in significant therapeutic responses, including low toxicity, high
CC   tolerance and prolonged survival. Administration at high doses for short
CC   periods of time (less than 14 days) also provides significant therapeutic
CC   responses in the treatment of cancer. The bcl-2 antisense oligomer may
CC   also be used to increase the sensitivity of a subject to cancer
CC   therapeutics, and in combination with hormone treatment or gene therapy.
CC   Conditions that may be treated or prevented include cancer of the
CC   haematopoietic system, skin, bone and soft tissue, reproductive system,
CC   genitourinary system, breast, endocrine system, brain, central nervous
CC   system, peripheral nervous system, kidney, lung, respiratory system,
CC   thorax, gastrointestinal and alimentary canal, lymph nodes, pancreas,
CC   hepatobiliary system, or cancer of unknown primary site, non-Hodgkin's
CC   lymphoma, Hodgkin's lymphoma, leukaemia, colon carcinoma, rectal
CC   carcinoma, pancreatic, breast, ovarian, prostate, cervical, testicular,
CC   head and neck or brain cancer, renal cell carcinoma, hepatoma, bile duct
CC   carcinoma, choriocarcinoma, lung carcinoma, bladder carcinoma and
CC   melanoma (all claimed)
XX
SQ   Sequence 20 BP; 4 A; 10 C; 3 G; 3 T; 0 U; 0 Other;
```

```
  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        577 GGAGGCTGGGTAGGTGCATC 596
              ||||||||||||||||||||
Db         20 GGAGGCTGGGTAGGTGCATC 1


RESULT 57
ABT16736/c
ID   ABT16736 standard; DNA; 20 BP.
XX
AC   ABT16736;
XX
DT   03-APR-2003  (first entry)
XX
DE   bcl-2 PCR primer SEQ ID No 98.
XX
KW   Anti-tumour; DNAzyme; bcl-2 gene; tumour; malignant; chemotherapy;
KW   radiation therapy; enzyme; PCR; primer; ss.
XX
OS   Unidentified.
XX
PN   WO200299090-A1.
XX
PD   12-DEC-2002.
XX
PF   07-JUN-2002; 2002WO-AU000739.
XX
PR   07-JUN-2001; 2001AU-00005527.
XX
PA   (JOHJ ) JOHNSON & JOHNSON RES PTY LTD.
XX
PI   Sun L,  Wang L,  Turner RJ,  Saravolac EG,  Dass CR;
XX
DR   WPI; 2003-140617/13.
XX
PT   Novel DNAzyme useful for treating tumors, and for enhancing the
PT   sensitivity of malignant or virus infected cells to therapy, comprises a
PT   catalytic domain and binding domain contiguous to the catalytic domain.
XX
PS   Example 1; Page 16; 67pp; English.
XX
CC   The invention relates to a DNAzyme which specifically cleaves mRNA
CC   transcribed from a member of the bcl-2 gene family. The DNAzymes comprise
CC   a catalytic domain, binding domains contiguous with the 5' and 3' end of
CC   the catalytic domain, and therefore hybridise with, the two regions
CC   immediately flanking the purine residue of the cleavage site within the
CC   bcl-2 gene family mRNA, at which DNAzyme-catalysed cleavage is desired. A
CC   pharmaceutical composition comprising a DNAzyme of the invention is
CC   useful for treating tumours in a subject, and for enhancing the
CC   sensitivity of malignant or virus infected cells infected cells to
CC   therapy. The DNAzymes are useful in diagnostics, therapeutics,
CC   prophylaxis, research agents and in kits. The DNAzymes are also useful
CC   for increasing the susceptibility of tumour cells to anti-tumour
CC   therapies such as chemotherapy and radiation therapy. This polynucleotide
CC   sequence represents a bcl-2 PCR primer of the invention
XX
SQ   Sequence 20 BP; 3 A; 12 C; 1 G; 4 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        421 GGGGTGAACTGGGGGAGGAT 440
              ||||||||||||||||||||
Db         20 GGGGTGAACTGGGGGAGGAT 1


RESULT 58
ACC99688
ID   ACC99688 standard; DNA; 20 BP.
XX
AC   ACC99688;
XX
DT   02-SEP-2003  (first entry)
XX
DE   Bcl2 PCR primer SEQ ID NO:69.
XX
KW   Multiplex real-time quantitative PCR; PCR primer; copy number;
KW   Alzheimer's disease; ss.
XX
OS   Synthetic.
XX
PN   WO2003048377-A2.
XX
PD   12-JUN-2003.
XX
PF   02-DEC-2002; 2002WO-US038806.
XX
PR   30-NOV-2001; 2001US-0336095P.
PR   19-JUL-2002; 2002US-0397475P.
XX
PA   (UYRP ) UNIV ROCHESTER.
PA   (THER/) THERIANOS S.
XX
PI   Zhu M,  Coleman P;
XX
DR   WPI; 2003-532841/50.
XX
PT   Determining the relative copy number of a group of target nucleic acid
PT   molecules present in a sample by performing a first or second PCR in a
PT   PCR mixture and quantifying the number of copies of the second target
PT   nucleic acid product.
XX
PS   Disclosure; Fig 6; 118pp; English.
XX
CC   The present invention describes a multiplex real-time quantitative PCR
CC   method for determining the relative copy number of a group of target
CC   nucleic acid molecules present in a sample. The method comprises: (1)
CC   performing a first PCR in a PCR mixture; (2) performing a second PCR in a
CC   PCR mixture; and (3) quantifying the number of copies of the second
CC   target nucleic acid product present in the sample containing the target
CC   nucleic acid molecule. Also described: (1) quantifying the copy number of
CC   a group of target nucleic acids in a sample; and (2) determining whether
CC   a subject is at risk of acquiring Alzheimer's disease. The method is
CC   useful for determining the relative copy number of a group of target
CC   nucleic acid molecules present in a sample for determining whether a
CC   subject is at risk of acquiring Alzheimer's disease. ACC99620 to ACC99730
CC   represent PCR primer used in the exemplification of the present invention
XX
SQ   Sequence 20 BP; 5 A; 2 C; 8 G; 5 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        469 ATGTGTGTGGAGAGCGTCAA 488
              ||||||||||||||||||||
Db          1 ATGTGTGTGGAGAGCGTCAA 20


RESULT 59
ADC66004/c
ID   ADC66004 standard; DNA; 20 BP.
XX
AC   ADC66004;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Phosphorothioate containing oligonucleotide.
XX
KW   ss; sulphurisation; phosphorus-containing compound; phosphorothioate.
XX
```

```
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag= a
FT                   /mod_base= OTHER
FT                   /note= "Phosphorothioate backbone"
XX
PN   US2003139592-A1.
XX
PD   24-JUL-2003.
XX
PF   07-OCT-2002; 2002US-00266027.
XX
PR   08-OCT-1998;   98US-00168447.
PR   12-OCT-1999;   99US-00416031.
XX
PA   (MART/) MARTIN P.
PA   (NATT/) NATT F J C.
XX
PI   Martin P,  Natt FJC;
XX
DR   WPI; 2003-765747/72.
XX
PT   Sulfurization of phosphorus-containing compounds useful in making, e.g.
PT   phosphorothioate-containing antisense oligonucleotides, comprises
PT   contacting phosphorus compound to be sulfurized with sulfur transfer
PT   reagent.
XX
PS   Example; Page 3; 7pp; English.
XX
CC   The invention relates to the sulphurisation of phosphorus-containing
CC   compounds comprising contacting the phosphorus compound to be sulphurised
CC   with a sulphur transfer reagent of structure/formulae detailed in the
CC   specification. The phosphorus-containing compounds are, e.g.
CC   phosphorothioate-containing antisense oligonucleotides useful in vitro
CC   and in vivo as inhibitors of gene expression. The method provides
CC   excellent yields, good solubility, stable solutions, and short reaction
CC   times. It eliminates the formation of phosphorous-oxygen double bond
CC   (P=O) units. It does not require additional reagents. It has no side
CC   reactions with other parts of the molecule, odourless itself and its
CC   reaction products, capable of regeneration, and easily available. The
CC   present sequence is a phosphorothioate containing oligonucleotide
CC   produced by the method of the invention.
XX
SQ   Sequence 20 BP; 4 A; 11 C; 1 G; 4 T; 0 U; 0 Other;

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 58;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        422 GGGTGAACTGGGGGAGGATT 441
              ||||||||||||||||||||
Db         20 GGGTGAACTGGGGGAGGATT 1


RESULT 60
AAQ51957
ID   AAQ51957 standard; RNA; 19 BP.
XX
AC   AAQ51957;
XX
DT   25-MAR-2003  (revised)
DT   26-MAY-1994  (first entry)
XX
DE   BCL-2 mRNA ribozyme cleavable nucleotide (1807).
XX
KW   Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW   resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW   actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW   adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW   human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW   neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW   hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
XX
OS   Homo sapiens.
XX
PN   WO9323057-A1.
XX
PD   25-NOV-1993.
XX
PF   13-MAY-1993;   93WO-US004573.
XX
PR   14-MAY-1992;   92US-00882822.
PR   14-MAY-1992;   92US-00882885.
PR   26-AUG-1992;   92US-00936110.
PR   26-AUG-1992;   92US-00936421.
PR   26-AUG-1992;   92US-00936422.
PR   26-AUG-1992;   92US-00936531.
PR   26-AUG-1992;   92US-00936532.
PR   07-DEC-1992;   92US-00987131.
PR   19-JAN-1993;   93US-00006122.
PR   19-JAN-1993;   93US-00008910.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Draper KG;
XX
DR   WPI; 1993-386203/48.
XX
PT   New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT   with tumours or mRNA expressed from gene encoding multiple drug
PT   resistance.
XX
PS   Claim 3; Fig 6; 69pp; English.
XX
CC   The sequences given in AAQ51825-2266 represent areas of mRNAs which are
CC   associated with development or maintenance of chronic myelogenous
CC   leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC   lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC   leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC   The full length mRNAs containing these target sequences, encode aberant
CC   cellular proteins which are able to control cellular proliferation and
CC   are directly linked to a leukemic phenotype. These target sequences are
CC   identified by the ribozyme of the invention. The ribozymes is formed in a
CC   hammerhead motif, but may also be formed in the motif of a hairpin,
CC   hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC   may be used to inhibit the development or expression of a transformed
CC   phenotype in man and other animals by modulating expression of the
CC   corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC   and transformed cells elicits inhibition of the transformed state.
CC   Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC   mechanism of drug resistance used by transformed cells and thus enhances
CC   drug therapies for tumours. The ribozymes may also be used to study
CC   genetic drift and mutations within cells. (Updated on 25-MAR-2003 to
CC   correct PN field.)
XX
SQ   Sequence 19 BP; 4 A; 8 C; 5 G; 0 T; 2 U; 0 Other;

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   89.5%;  Pred. No. 68;
  Matches   17;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        349 AGCCAGCTGCACCTGACGC 367
              |||||||:|||||:|||||
Db          1 AGCCAGCUGCACCUGACGC 19


RESULT 61
AAQ51958
ID   AAQ51958 standard; RNA; 19 BP.
XX
AC   AAQ51958;
XX
```

DT 26-MAY-1994 (first entry)
XX
DE BCL-2 mRNA ribozyme cleavable nucleotide (1836).
XX
KW Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
KW neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
XX
OS Homo sapiens.
XX
PN WO9323057-A1.
XX
PD 25-NOV-1993.
XX
PF 13-MAY-1993; 93WO-US004573.
XX
PR 14-MAY-1992; 92US-00882822.
PR 14-MAY-1992; 92US-00882885.
PR 26-AUG-1992; 92US-00936110.
PR 26-AUG-1992; 92US-00936421.
PR 26-AUG-1992; 92US-00936422.
PR 26-AUG-1992; 92US-00936531.
PR 26-AUG-1992; 92US-00936532.
PR 07-DEC-1992; 92US-00987131.
PR 19-JAN-1993; 93US-00006122.
PR 19-JAN-1993; 93US-00008910.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Draper KG;
XX
DR WPI; 1993-386203/48.
XX
PT New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT with tumours or mRNA expressed from gene encoding multiple drug
PT resistance.
XX
PS Claim 3; Fig 6; 69pp; English.
XX
CC The sequences given in AAQ51825-2266 represent areas of mRNAs which are
CC associated with development or maintenance of chronic myelogenous
CC leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC The full length mRNAs containing these target sequences, encode aberant
CC cellular proteins which are able to control cellular proliferation and
CC are directly linked to a leukemic phenotype. These target sequences are
CC identified by the ribozyme of the invention. The ribozymes is formed in a
CC hammerhead motif, but may also be formed in the motif of a hairpin,
CC hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC may be used to inhibit the development or expression of a transformed
CC phenotype in man and other animals by modulating expression of the
CC corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC and transformed cells elicits inhibition of the transformed state.
CC Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC mechanism of drug resistance used by transformed cells and thus enhances
CC drug therapies for tumours. The ribozymes may also be used to study
CC genetic drift and mutations within cells. (Updated on 25-MAR-2003 to
CC correct PN field.)
XX
SQ Sequence 19 BP; 2 A; 6 C; 8 G; 0 T; 3 U; 0 Other;

Query Match 3.1%; Score 19; DB 1; Length 19;
Best Local Similarity 84.2%; Pred. No. 68;
Matches 16; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

Qy 378 GCGGGGACGCTTTGCCACG 396
||||||||||:::||||||

Db 1 GCGGGGACGCUUUGCCACG 19

RESULT 62
AAQ51960
ID AAQ51960 standard; RNA; 19 BP.
XX
AC AAQ51960;
XX
DT 25-MAR-2003 (revised)
DT 26-MAY-1994 (first entry)
XX
DE BCL-2 mRNA ribozyme cleavable nucleotide (1972).
XX
KW Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
KW neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
XX
OS Homo sapiens.
XX
PN WO9323057-A1.
XX
PD 25-NOV-1993.
XX
PF 13-MAY-1993; 93WO-US004573.
XX
PR 14-MAY-1992; 92US-00882822.
PR 14-MAY-1992; 92US-00882885.
PR 26-AUG-1992; 92US-00936110.
PR 26-AUG-1992; 92US-00936421.
PR 26-AUG-1992; 92US-00936422.
PR 26-AUG-1992; 92US-00936531.
PR 26-AUG-1992; 92US-00936532.
PR 07-DEC-1992; 92US-00987131.
PR 19-JAN-1993; 93US-00006122.
PR 19-JAN-1993; 93US-00008910.
XX
PA (RIBO-) RIBOZYME PHARM INC.
XX
PI Thompson JD, Draper KG;
XX
DR WPI; 1993-386203/48.
XX
PT New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT with tumours or mRNA expressed from gene encoding multiple drug
PT resistance.
XX
PS Claim 3; Fig 6; 69pp; English.
XX
CC The sequences given in AAQ51825-2266 represent areas of mRNAs which are
CC associated with development or maintenance of chronic myelogenous
CC leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC The full length mRNAs containing these target sequences, encode aberant
CC cellular proteins which are able to control cellular proliferation and
CC are directly linked to a leukemic phenotype. These target sequences are
CC identified by the ribozyme of the invention. The ribozymes is formed in a
CC hammerhead motif, but may also be formed in the motif of a hairpin,
CC hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC may be used to inhibit the development or expression of a transformed
CC phenotype in man and other animals by modulating expression of the
CC corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC and transformed cells elicits inhibition of the transformed state.
CC Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC mechanism of drug resistance used by transformed cells and thus enhances
CC drug therapies for tumours. The ribozymes may also be used to study
CC genetic drift and mutations within cells. (Updated on 25-MAR-2003 to

```
CC   correct PN field.)
XX
SQ   Sequence 19 BP; 5 A; 5 C; 5 G; 0 T; 4 U; 0 Other;

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   78.9%;  Pred. No. 68;
  Matches   15;  Conservative    4;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        514 AACATCGCCCTGTGGATGA 532
              ||||:|||||:|:|||:||
Db          1 AACAUCGCCCUGUGGAUGA 19


RESULT 63
AAA95740
ID   AAA95740 standard; DNA; 19 BP.
XX
AC   AAA95740;
XX
DT   14-FEB-2001  (first entry)
XX
DE   PKCalpha primer-pair amplification primer FUP100.
XX
KW   Amplification; primer pair; anchor; reverse transcriptase;
KW   DNA polymerase; complementation; stem structure; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061807-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009230.
XX
PR   08-APR-1999;   99US-0128378P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD;
XX
DR   WPI; 2001-031588/04.
XX
PT   Novel primer pairs useful for amplifying and sequencing nucleic acid
PT   sequences, comprising oligonucleotide anchors and primers.
XX
PS   Example 1; Page 8; 21pp; English.
XX
CC   The invention relates to amplifying a target nucleic acid sequence using
CC   a primer pair comprising an oligonucleotide anchor and primer, where the
CC   anchor is not a substrate for reverse transcriptase or DNA polymerase
CC   and/or has a 3' end which is not capable of priming nucleic acid
CC   synthesis, the primer part is a substrate for reverse transcriptase or
CC   DNA polymerase and both the anchor and the primer include a region of
CC   complementary nucleotides capable of associating to form a stem
CC   structure. The method comprises amplifying the target nucleic acid
CC   sequence with paired forward anchor (FA)-forward primer (FP), and reverse
CC   anchor (RA-reverse primer (RP), where the FA/FP form a first primer pair
CC   and the RA/RP form a second primer pair via association of their
CC   complementary stem regions. The primers are selected on the basis of
CC   complementarity to the target nucleic acid sequence and amplification is
CC   via enzyme-mediated amplification. This sequence represnts an example of
CC   a forward universal primer which is complementary to the FA-FP pair
XX
SQ   Sequence 19 BP; 2 A; 8 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 68;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        267 GCCACCTGTGGTCCACCTG 285
              |||||||||||||||||||
Db          1 GCCACCTGTGGTCCACCTG 19


RESULT 64
ABN88834
ID   ABN88834 standard; DNA; 19 BP.
XX
AC   ABN88834;
XX
DT   21-AUG-2002  (first entry)
XX
DE   Human bcl-2 PCR primer SEQ ID NO:23.
XX
KW   Apoptosis-inducing ribozyme; hammerhead ribozyme; ribozyme; MT;
KW   metallothionein; cancer; tumour; PCR primer; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200236740-A2.
XX
PD   10-MAY-2002.
XX
PF   31-OCT-2001; 2001WO-US046062.
XX
PR   31-OCT-2000; 2000US-0244709P.
XX
PA   (UYMA-) UNIV MASSACHUSETTS MEDICAL CENT.
XX
PI   Lee K,  Lau K,  Ho S;
XX
DR   WPI; 2002-479757/51.
XX
PT   New ribozymes directed against metallothionein mRNAs, useful for inducing
PT   apoptosis in human cancer cells, for inhibiting tumor growth and for
PT   enhancing the effectiveness of chemotherapy or radiation therapy against
PT   cancer cells.
XX
PS   Example 11; Page 33; 63pp; English.
XX
CC   The present invention describes a ribozyme comprising Hu MT-Ia Rz, Hu MT-
CC   Ie/r Rz, Hu MT-If Rz, Hu MT-Ib Rz, Hu MT-Ighlx/-II Rz, Rz1-2, or Rz4-9
CC   (see ABN88812 to ABN88818). The ribozymes have cytostatic activity. The
CC   ribozymes are targeted to metallothionein (MT) and so are metallothionein
CC   inhibitors and apoptosis inducers. The ribozymes are useful for inducing
CC   apoptosis in human cancer cells, for inhibiting tumour growth, and for
CC   enhancing the effectiveness of chemotherapy or radiation therapy against
CC   cancer cells. The ribozyme-based methods for treating cancer, from the
CC   present invention, offer the following advantages over conventional
CC   antisense-based methods of limiting metallothionein production in target
CC   cells: (1) ribozymes destroy metallothionein-encoding mRNAs rather than
CC   merely hybridising them; (2) ribozymes act like enzymes and each molecule
CC   can be recycled to degrade multiple mRNA molecules; (3) a ribozyme need
CC   not have perfect complementarity with a target mRNA to destroy the RNA;
CC   and (4) a single ribozyme can be designed to destroy several related
CC   mRNAs that encode different metallothioneins more readily than a
CC   conventional antisense molecule can be designed to be effective against
CC   various mRNAs. ABN88819 to ABN88870 represent sequences used in the
CC   exemplification of the present invention
XX
SQ   Sequence 19 BP; 3 A; 9 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 68;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        356 TGCACCTGACGCCCTTCAC 374
              |||||||||||||||||||
Db          1 TGCACCTGACGCCCTTCAC 19


RESULT 65
AAD15645
ID   AAD15645 standard; DNA; 20 BP.
XX
```

```
AC   AAD15645;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #19.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 3 A; 11 C; 6 G; 0 T; 0 U; 0 Other;

  Query Match             3.1%;  Score 19;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 73;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        154 CAGCCCGGGCACACGCCCC 172
              ||||||||||||||||||
Db          2 CAGCCCGGGCACACGCCCC 20


RESULT 66
AAZ35732
ID   AAZ35732 standard; DNA; 20 BP.
XX
AC   AAZ35732;
XX
DT   28-JAN-2000  (first entry)
XX
DE   Oligonucleotide D01050.
XX
KW   Bcl-2; antisense oligonucleotide; inhibition; growth; human;
KW   malignant tumour; small-cell lung cancer; prostate tumour; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   CN1227227-A.
XX
PD   01-SEP-1999.
XX
PF   27-FEB-1998;   98CN-00111872.
XX
PR   27-FEB-1998;   98CN-00111872.
XX
PA   (CHEN-) CHENGDU DIAO PHARM CO CHINESE ACAD SCI.
XX
PI   Li B;
XX
DR   WPI; 1999-611746/53.
XX
PT   Antisense nucleoside for inhibiting the growth of human malignant tumor -
PT   curing small-cell lung cancer and prostate tumor.
XX
PS   Disclosure; Page 5; 9pp; Chinese.
XX
CC   The present invention describes an antisense oligonucleotide having the
CC   DNA sequence of 5' AGG TGC AGC TGC CTG GAC AT3' which can inhibit the
CC   expression of the Bcl-2 gene. The Bcl-2 gene is relevant to the
CC   occurrence and development of various tumours. The antisense
CC   oligonucleotide blocks the synthesis of the Bcl-2 protein. The antisense
CC   oligonucleotide can be used for inhibiting the development of tumour
CC   cells, and to cure human malignant tumour. It can also be used to cure
CC   small-cell lung cancer and prostate tumour. The present sequence is used
CC   in the exemplification of the present invention
XX
SQ   Sequence 20 BP; 4 A; 7 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             3.0%;  Score 18.4;  DB 1;  Length 20;
  Best Local Similarity   95.0%;  Pred. No. 83;
  Matches   19;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        343 ATGTCCAGCCAGCTGCACCT 362
              ||||||||.||||||||||
Db          1 ATGTCCAGGCAGCTGCACCT 20


RESULT 67
AAZ35730/c
ID   AAZ35730 standard; DNA; 20 BP.
XX
AC   AAZ35730;
XX
DT   28-JAN-2000  (first entry)
XX
DE   Bcl-2 antisense oligonucleotide.
XX
KW   Bcl-2; antisense oligonucleotide; inhibition; growth; human;
KW   malignant tumour; small-cell lung cancer; prostate tumour; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   CN1227227-A.
XX
PD   01-SEP-1999.
XX
PF   27-FEB-1998;   98CN-00111872.
XX
PR   27-FEB-1998;   98CN-00111872.
XX
PA   (CHEN-) CHENGDU DIAO PHARM CO CHINESE ACAD SCI.
XX
PI   Li B;
XX
DR   WPI; 1999-611746/53.
XX
PT   Antisense nucleoside for inhibiting the growth of human malignant tumor -
PT   curing small-cell lung cancer and prostate tumor.
XX
PS   Claim 1; Page 1; 9pp; Chinese.
XX
CC   The present sequence represents an antisense oligonucleotide having the
CC   DNA sequence of 5' AGG TGC AGC TGC CTG GAC AT3' which can inhibit the
```

```
CC   expression of the Bcl-2 gene. The Bcl-2 gene is relevant to the
CC   occurrence and development of various tumours. The antisense
CC   oligonucleotide blocks the synthesis of the Bcl-2 protein. The antisense
CC   oligonucleotide can be used for inhibiting the development of tumour
CC   cells, and to cure human malignant tumour. It can also be used to cure
CC   small-cell lung cancer and prostate tumour
XX
SQ   Sequence 20 BP; 4 A; 5 C; 7 G; 4 T; 0 U; 0 Other;

  Query Match             3.0%;  Score 18.4;  DB 1;  Length 20;
  Best Local Similarity   95.0%;  Pred. No. 83;
  Matches   19;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        343 ATGTCCAGCCAGCTGCACCT 362
              ||||||||  ||||||||||
Db         20 ATGTCCAGGCAGCTGCACCT 1


RESULT 68
AAX09086/c
ID   AAX09086 standard; DNA; 20 BP.
XX
AC   AAX09086;
XX
DT   14-JUN-1999  (first entry)
XX
DE   Tumour necrosis factor alpha antisense oligonucleotide.
XX
KW   Tumour necrosis factor alpha; TNF-alpha; antisense oligonucleotide; ASO;
KW   inhibition; expresssion; treatment; disease; disorder; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   WO9901139-A1.
XX
PD   14-JAN-1999.
XX
PF   02-JUL-1998;   98WO-US013711.
XX
PR   03-JUL-1997;   97US-0051705P.
XX
PA   (UYJE-) UNIV JEFFERSON THOMAS.
XX
PI   Tu G,  Israel Y;
XX
DR   WPI; 1999-105767/09.
XX
PT   Generation of antisense oligonucleotides - by specifically targeting a
PT   GGGA motif found in mRNA sequences.
XX
PS   Example 2; Page 37; 55pp; English.
XX
CC   Antisense oligonucleotides (ASO) for inhibiting a tumour necrosis factor-
CC   alpha (TNF-alpha) gene in an animal, preferably a human, comprise 12-50
CC   nucleotides, 90% of which are complementary to a region of mRNA
CC   containing a GGGA sequence motif. The ASO is used to inhibit expression
CC   of a gene in an animal and for treating the animal when afflicted with a
CC   disease or disorder characterised by the presence of an mRNA from a gene
CC   containing a GGGA motif. The ASO are specifically targeted to a GGGA
CC   sequence motif found in mRNA from a gene. A study of known ASO has shown
CC   that at least half of the most efficacious ASO's contain one or more TCCC
CC   motifs. This ASO comprises a TCCC motif followed by a adenine residue and
CC   corresponds to a region of the human bcl-2 open reading frame
XX
SQ   Sequence 20 BP; 2 A; 7 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             3.0%;  Score 18.4;  DB 1;  Length 20;
  Best Local Similarity   95.0%;  Pred. No. 83;
  Matches   19;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGAAC 20
              |||||  ||||||||||||||
Db         20 ATGGCACACGCTGGGAGAAC 1


RESULT 69
AAH48720/c
ID   AAH48720 standard; DNA; 20 BP.
XX
AC   AAH48720;
XX
DT   19-OCT-2001  (first entry)
XX
DE   Proto-oncogene bcl-2 associated primer SEQ ID 1.
XX
KW   Primer; phosphorothioate; somatostatin; cytostatic; virucide; asthma;
KW   antiinflammatory; antiasthmatic; cardiant; antisense therapy; cancer;
KW   viral disease; inflammatory process; somatostatin receptor;
KW   central nervous system disease; cardiovascular disease; SSTR;
KW   proto-oncogene; bcl-2;.ss.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .20
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "phosphorothioate"
XX
PN   DE10006572-A1.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2000; 2000DE-01006572.
XX
PR   14-FEB-2000; 2000DE-01006572.
XX
PA   (DEKR-) DEUT KREBSFORSCHUNGSZENTRUM.
XX
PI   Eisenhut M,  Mier W,  Eritia R,  Haberkorn U;
XX
DR   WPI; 2001-530596/59.
XX
PT   New conjugates of oligonucleotides with somatostatin analogs, useful in
PT   antisense therapy, e.g. of viral, inflammatory or asthmatic disease or
PT   especially tumors overexpressing the somatostatin receptor.
XX
PS   Claim 14; Page 9; 16pp; German.
XX
CC   This invention describes a novel oligonucleotide conjugate (I) comprising
CC   (a) an oligonucleotide, at least part of the sequence of which is
CC   complementary to part of an intracellular nucleic acid sequence; and (b)
CC   a somatostatin analog. The products of the invention have cytostatic,
CC   virucide, antiinflammatory, antiasthmatic and cardiant activity. The use
CC   of (I) is claimed in antisense therapy, especially of cancer, viral
CC   disease, inflammatory processes or asthmatic, central nervous system or
CC   cardiovascular disease. (I) are especially used for therapy of tumors
CC   overexpressing the somatostatin receptor (SSTR) (e.g. small-cell lung
CC   tumors, breast tumors, brain tumors or other endocrine tumors), but are
CC   also useful for treating viral diseases (e.g. herpes simplex-1
CC   infection), inflammatory disease (typical target RNA the NF-kappa-B),
CC   asthmatic disease (typical target RNA the adenosine A1 receptor), central
CC   nervous system disease (typical target RNA the dopamine receptor) or
CC   cardiovascular disease (typical target RNA c-myc). (I) are efficiently
CC   taken up by cells and incorporated in target cells (via the SSTR) and are
CC   highly selective for cells overexpressing SSTR's. This sequence
CC   represents a primer used to illustrate the method of the invention
XX
SQ   Sequence 20 BP; 2 A; 7 C; 5 G; 6 T; 0 U; 0 Other;

  Query Match             3.0%;  Score 18.4;  DB 1;  Length 20;
  Best Local Similarity   95.0%;  Pred. No. 83;
  Matches   19;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGAAC 20
```

```
                    ||||| ||||||||||||||||
Db         20 ATGGCACACGCTGGGAGAAC 1
```

```
RESULT 70
AAH48721
ID   AAH48721 standard; DNA; 20 BP.
XX
AC   AAH48721;
XX
DT   19-OCT-2001  (first entry)
XX
DE   Proto-oncogene bcl-2 associated primer SEQ ID 2.
XX
KW   Primer; phosphorothioate; somatostatin; cytostatic; virucide; asthma;
KW   antiinflammatory; antiasthmatic; cardiant; antisense therapy; cancer;
KW   viral disease; inflammatory process; somatostatin receptor;
KW   central nervous system disease; cardiovascular disease; SSTR;
KW   proto-oncogene; bcl-2; ss.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .20
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "phosphorothioate"
XX
PN   DE10006572-A1.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2000; 2000DE-01006572.
XX
PR   14-FEB-2000; 2000DE-01006572.
XX
PA   (DEKR-) DEUT KREBSFORSCHUNGSZENTRUM.
XX
PI   Eisenhut M,  Mier W,  Eritia R,  Haberkorn U;
XX
DR   WPI; 2001-530596/59.
XX
PT   New conjugates of oligonucleotides with somatostatin analogs, useful in
PT   antisense therapy, e.g. of viral, inflammatory or asthmatic disease or
PT   especially tumors overexpressing the somatostatin receptor.
XX
PS   Example 1; Page 9; 16pp; German.
XX
CC   This invention describes a novel oligonucleotide conjugate (I) comprising
CC   (a) an oligonucleotide, at least part of the sequence of which is
CC   complementary to part of an intracellular nucleic acid sequence; and (b)
CC   a somatostatin analog. The products of the invention have cytostatic,
CC   virucide, antiinflammatory, antiasthmatic and cardiant activity. The use
CC   of (I) is claimed in antisense therapy, especially of cancer, viral
CC   disease, inflammatory processes or asthmatic, central nervous system or
CC   cardiovascular disease. (I) are especially used for therapy of tumors
CC   overexpressing the somatostatin receptor (SSTR) (e.g. small-cell lung
CC   tumors, breast tumors, brain tumors or other endocrine tumors), but are
CC   also useful for treating viral diseases (e.g. herpes simplex-1
CC   infection), inflammatory disease (typical target RNA the NF-kappa-B),
CC   asthmatic disease (typical target RNA the adenosine A1 receptor), central
CC   nervous system disease (typical target RNA the dopamine receptor) or
CC   cardiovascular disease (typical target RNA c-myc). (I) are efficiently
CC   taken up by cells and incorporated in target cells (via the SSTR) and are
CC   highly selective for cells overexpressing SSTR's. This sequence
CC   represents a primer used to illustrate the method of the invention
XX
SQ   Sequence 20 BP; 6 A; 5 C; 7 G; 2 T; 0 U; 0 Other;

  Query Match              3.0%;  Score 18.4;  DB 1;  Length 20;
  Best Local Similarity   95.0%;  Pred. No. 83;
  Matches   19;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;
```

```
Qy          1 ATGGCGCACGCTGGGAGAAC 20
              ||||| ||||||||||||||||
Db          1 ATGGCACACGCTGGGAGAAC 20
```

```
RESULT 71
AAD15644
ID   AAD15644 standard; DNA; 20 BP.
XX
AC   AAD15644;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #18.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 3 A; 11 C; 6 G; 0 T; 0 U; 0 Other;

  Query Match              3.0%;  Score 18.4;  DB 1;  Length 20;
  Best Local Similarity   95.0%;  Pred. No. 83;
  Matches   19;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;
```

```
Qy        152 CCCAGCCCGGGCACACGCCC 171
              | ||||||||||||||||||
Db          1 CGCAGCCCGGGCACACGCCC 20
```

```
RESULT 72
AAC65072/c
ID   AAC65072 standard; DNA; 19 BP.
XX
AC   AAC65072;
XX
DT   12-FEB-2001  (first entry)
XX
DE   Human bcl genes antisense sequence #16.
XX
KW   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
```

```
KW   protein kinase C; PKC; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061810-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009293.
XX
PR   08-APR-1999;   99US-0128377P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD,  Riley TA;
XX
DR   WPI; 2000-679502/66.
XX
PT   Antisense oligonucleotides containing degenerate and/or universal bases,
PT   and modified backbone linkages is useful to target therapeutic genes,
PT   preferably anti-apoptosis or chemoresistance genes.
XX
PS   Example 7; Fig 3; 32pp; English.
XX
CC   The present invention is concerned with antisense oligonucleotides
CC   containing a number of degenerate bases and with a modified backbone
CC   which can be used to direct cleavage of target RNA molecules. The use of
CC   degenerate bases reduces the risk of immune activation following
CC   injection into animals, which causes deleterious side effects associated
CC   with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC   C65077 are antisense oligonucleotides and PCR primers used in assays to
CC   demonstrate the effects of the sequences of the invention
XX
SQ   Sequence 19 BP; 1 A; 5 C; 9 G; 2 T; 0 U; 2 Other;

  Query Match             3.0%;  Score 18.2;  DB 1;  Length 19;
  Best Local Similarity   89.5%;  Pred. No. 81;
  Matches   17;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        216 GCAGACCCCGGCTGCCCCC 234
              ||||||:||||||||||:||
Db         19 GCAGACYCCGGCTGCCYCC 1


RESULT 73
AAQ86659/c
ID   AAQ86659 standard; DNA; 18 BP.
XX
AC   AAQ86659;
XX
DT   25-MAR-2003  (revised)
DT   27-SEP-1995  (first entry)
XX
DE   Bcl-2 antisense oligonucleotide.
XX
KW   Anticode oligomer; antisense oligonucleotide; bcl-2; cancer; therapy;
KW   chemoresistance; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   misc_feature    1. .18
FT                   /*tag=  a
FT                   /note= "3'-5' (antisense) sequence"
XX
PN   WO9508350-A1.
XX
PD   30-MAR-1995.
XX
PF   20-SEP-1994;   94WO-US010725.
XX
PR   20-SEP-1993;   93US-00124256.
XX
PA   (REED/) REED J C.
XX
PI   Reed JC;
XX
DR   WPI; 1995-139394/18.
XX
PT   Anti-code oligomers which bind to bcl-2 mRNA - for the treatment of human
PT   solid tumours, esp. breast cancer.
XX
PS   Example 18; Page 44; 108pp; English.
XX
CC   Reversal of chemoresistance of tumor cells by antisense-mediated
CC   reduction of bcl1-2 expression was demonstrated using the oligonucleotide
CC   given in AAQ86659. This is antisense to the first 6 codons of the bcl-2
CC   ORF. (Updated on 25-MAR-2003 to correct PN field.)
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 74
AAV52545/c
ID   AAV52545 standard; DNA; 18 BP.
XX
AC   AAV52545;
XX
DT   20-NOV-1998  (first entry)
XX
DE   Unmethylated CpG dinucleotide 1758.
XX
KW   Unmethylated CpG dinucleotide; immune response; bacterial meningitis;
KW   natural killer cell activation; NK cell; Th2 response; neonatal sepsis;
KW   pulmonary disorder; asthma; environmentally induced airway disease;
KW   bacterial infection; endotoxaemia; therapy; cystic fibrosis;
KW   inflammatory bowel disease; ss.
XX
OS   Synthetic.
XX
PN   WO9837919-A1.
XX
PD   03-SEP-1998.
XX
PF   25-FEB-1998;   98WO-US003678.
XX
PR   28-FEB-1997;   97US-0039405P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Schwartz DA,  Krieg AM;
XX
DR   WPI; 1998-480941/41.
XX
PT   Use of nucleic acids containing an unmethylated CpG - for treating a
PT   subject having or at risk of having an acute decrement in air flow or
PT   inhibiting an inflammatory response.
XX
PS   Example 4; Page 35; 65pp; English.
XX
CC   This sequence represents an unmethylated CpG dinucleotide, and can be
CC   used in the method of the invention. The method is for treating a subject
CC   having, or at risk of having an acute decrement in air flow, comprising
CC   administering a nucleic acid sequence containing at least one
CC   unmethylated CpG. The nucleic acids containing an unmethylated CpG
CC   dinucleotide affect an immune response in a subject by activating natural
CC   killer cells (NK) or redirecting a subject's immune response from a Th2
CC   to a Th1 response by inducing monocytic and other cells to produce Th1
```

```
CC   cytokines. They can be used to treat pulmonary disorders having an
CC   immunologic component, such as asthma or environmentally induced airway
CC   disease. They can also be used to treat diseases associated with Gram-
CC   positive bacterial infections or endotoxaemia including bacterial
CC   meningitis, neonatal sepsis, cystic fibrosis, inflammatory bowel disease
CC   and liver cirrhosis, Gram-negative pneumonia, Gram-negative abdominal
CC   abscess, haemorrhagic shock, disseminated intravascular coagulation, or
CC   an inflammatory response to lipopolysaccharide
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 75
AAV28181/c
ID   AAV28181 standard; DNA; 18 BP.
XX
AC   AAV28181;
XX
DT   08-OCT-1998  (first entry)
XX
DE   Antisense oligonucleotide to bcl-2 mRNA.
XX
KW   Purification; oligonucleotide; matrix; affinity unit;
KW   affinity purification; antisense; bcl-2; ss.
XX
OS   Synthetic.
XX
PN   WO9827425-A1.
XX
PD   25-JUN-1998.
XX
PF   18-DEC-1997;   97WO-US023284.
XX
PR   19-DEC-1996;   96US-00769951.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Chen D,  Srivatsa GS,  Cole DL;
XX
DR   WPI; 1998-362922/31.
XX
PT   Matrix for selective separation of oligo:nucleotide - useful for, e.g.
PT   large scale purification of anti-sense agents from their deletion
PT   derivatives formed during synthesis.
XX
PS   Disclosure; Page 86; 183pp; English.
XX
CC   AAV28155-268 represent oligonucleotides which can be purified using the
CC   method of the invention. The specification describes a matrix that
CC   comprises a support and an affinity unit that specifically and reversibly
CC   binds a target oligonucleotide, and comprises a sequence of bases having
CC   the reverse complement of a hybridising portion of the target
CC   oligonucleotide. The matrix is used for affinity purification of
CC   synthetic oligonucleotides, specifically antisense agents, for treatment
CC   of hyperproliferative diseases, for treating a non-pathogen, non-
CC   hyperproliferative disease, e.g. Alzheimer's, for modulating expression
CC   of cell surface proteins, and to inhibit a eukaryotic pathogen,
CC   retrovirus or other viruses
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 76
AAV27719/c
ID   AAV27719 standard; DNA; 18 BP.
XX
AC   AAV27719;
XX
DT   01-OCT-1998  (first entry)
XX
DE   Immunostimulatory oligodeoxyribonucleotide of the invention.
XX
KW   Immunostimulatory; oligodeoxyribonucleotide; ODN;
KW   unmethylated CpG dinucleotide; activate; lymphocyte; immune response;
KW   Th2; Th1; cytokine; treatment; prevention; asthma; autoimmune disease;
KW   desensitisation therapy; artificial adjuvant; antibody generation; ss.
XX
OS   Synthetic.
XX
PN   WO9818810-A1.
XX
PD   07-MAY-1998.
XX
PF   30-OCT-1997;   97WO-US019791.
XX
PR   30-OCT-1996;   96US-00738652.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Krieg AM,  Kline JN;
XX
DR   WPI; 1998-272127/24.
XX
PT   New immunostimulatory nucleic acid molecules - which contain at least one
PT   unmethylated CpG dinucleotide, used for treating e.g. tumours, infections
PT   or autoimmune disease.
XX
PS   Disclosure; Page 49; 109pp; English.
XX
CC   AAV27641-751 represent immunostimulatory oligodeoxyribonucleotides (ODNs)
CC   of the invention. The ODNs contain at least one unmethylated CpG
CC   dinucleotide, and have the formula: 5' N1X1CGX2N2 3', where at least one
CC   nucleotide separates consecutive CpGs, X1 is adenine, guanine, or
CC   thymine, X2 is cytosine or thymine, N is any nucleotide and N1+N2 is 0-26
CC   bases with the provision that N1 and N2 does not contain a CCGG tetramer
CC   or more than one CCG or CGG trimer OR 5' NX1X2CGX3X4N 3', where at least
CC   one nucleotide separates consecutive CpGs, X1 and X2 are selected from
CC   GpT, GpG, GpA, ApT and ApA, X3and X4 are selected from TpT or CpT, N is
CC   any nucleotide and N1+N2 is 0-26 bases with the provision that N1 and N2
CC   does not contain a CCGG tetramer or more than one CCG or CGG trimer. The
CC   ODNs activate lymphocytes in a subject and redirect a subject's immune
CC   response from a Th2 to a Th1 (e.g. by inducing monocytic cells and other
CC   cells to produce Th1 cytokines, including IL-12, IFN-gamma and GM-CSF).
CC   The ODNs can be used to treat or prevent an asthmatic disorder,
CC   autoimmune diseases, in desensitisation therapy, as an artificial
CC   adjuvant during antibody generation in a mammal such as a mouse or a
CC   human
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 77
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```
AAV19667/c
ID   AAV19667 standard; DNA; 18 BP.
XX
AC   AAV19667;
XX
DT   25-MAR-2003  (revised)
DT   12-JUN-1998  (first entry)
XX
DE   Human bcl-2 antisense oligonucleotide 13.
XX
KW   Antisense oligonucleotide; bcl-2 gene; lymphoma; leukaemia; human;
KW   cancer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   US5734033-A.
XX
PD   31-MAR-1998.
XX
PF   24-MAR-1994;   94US-00217082.
XX
PR   22-DEC-1988;   88US-00288692.
PR   21-FEB-1992;   92US-00840716.
XX
PA   (UYPE-) UNIV PENNSYLVANIA.
XX
PI   Reed J;
XX
DR   WPI; 1998-229881/20.
XX
PT   Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA - useful for
PT   treating cancers, e.g. lymphoma(s) and some leukaemia(s).
XX
PS   Disclosure; Col 23; 21pp; English.
XX
CC   This antisense oligonucleotide is complementary to the translation
CC   initiation site of the human bcl-2 mRNA. The Bcl-2 antisense
CC   oligonucleotides are phosphorothioate derivatives and can straddle
CC   strategic sites such as the translation initiation site, donor and
CC   acceptor splicing sites, or sites for transportation or degradation.
CC   Blocking translation at such strategic sites prevents the formation of a
CC   functional bcl-2 gene product. These oligonucleotides may be used for
CC   treating cancers associated with high levels of bcl-2 gene expression,
CC   especially lymphomas and some leukaemias. (Updated on 25-MAR-2003 to
CC   correct PF field.)
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 78
AAZ41948/c
ID   AAZ41948 standard; DNA; 18 BP.
XX
AC   AAZ41948;
XX
DT   24-JAN-2000  (first entry)
XX
DE   IL-12 secretion inducing CpG oligonucleotide 93.
XX
KW   CpG oligonucleotide; phosphorothioate; interleukin-12; IL-12; secretion;
KW   human PBMC; immune response; cancer; HIV; bacterial disease; asthma;
KW   neoplastic disorder; jaagsiekte; B cell; NK cell; ss; cytokine;
KW   antigen presenting cell; infection; allergic disease.
XX
OS   Synthetic.
XX
PN   WO9951259-A2.
XX
PD   14-OCT-1999.
XX
PF   02-APR-1999;   99WO-US007335.
XX
PR   03-APR-1998;   98US-0080729P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Krieg AM,  Weiner G;
XX
DR   WPI; 1999-620169/53.
XX
PT   Novel synergistic combinations of immunostimulatory oligonucleotides and
PT   immunopotentiating cytokines are useful for stimulating the immune
PT   system.
XX
PS   Example 8; Page 88; 91pp; English.
XX
CC   Sequences AAZ41856-Z41949 are phosphorothioate CpG oligonucleotides which
CC   are used in the invention to induce interleukin-12 (IL-12) secretion from
CC   human PBMC. The invention comprises stimulating an immune response in a
CC   subject comprising administering to a subject exposed to an antigen, an
CC   immunopotentiating cytokine and an immunostimulatory CpG oligonucleotide
CC   to induce a synergistic antigen specific immune response. The methods are
CC   useful for treating cancer by stimulating an antigen specific immune
CC   response against a cancer antigen. The methods can also be used to treat
CC   neoplastic disorders in humans, including but not limited to: sarcoma,
CC   carcinoma, fibroma, Lymphoma, melanoma, neuroblastoma, retinoblastoma,
CC   and glioma. The methods are also useful for treating infectious diseases,
CC   e.g. viral diseases such as HIV, bacterial diseases, and fungal diseases.
CC   The methods may also be used to treat allergic diseases, e.g. asthma. The
CC   methods and compositions may also be applied to treat cancer and tumours
CC   in non human subjects, e.g. cats and dogs. Neoplasias affecting
CC   agricultural livestock may also be treated and include leukaemia,
CC   haemangiopericytoma and bovine ocular neoplasia. Chronic, infectious,
CC   contagious diseases of sheep and goats caused by the bacterium
CC   Corynebacterium pseudotuberculosis, and contagious lung tumour of sheep
CC   caused by jaagsiekte may also be treated. CpG oligonucleotides can be
CC   useful in activating B cells, NK cells, and antigen presenting cells,
CC   such as monocytes and macrophages. CpG oligonucleotides enhance antibody
CC   dependent cellular cytotoxicity and can be used as an adjuvant in
CC   conjunction with tumour antigens to protect against a tumour challenge
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 79
AAZ41905/c
ID   AAZ41905 standard; DNA; 18 BP.
XX
AC   AAZ41905;
XX
DT   24-JAN-2000  (first entry)
XX
DE   IL-12 secretion inducing CpG oligonucleotide 50.
XX
KW   CpG oligonucleotide; phosphorothioate; interleukin-12; IL-12; secretion;
KW   human PBMC; immune response; cancer; HIV; bacterial disease; asthma;
KW   neoplastic disorder; jaagsiekte; B cell; NK cell; ss; cytokine;
KW   antigen presenting cell; infection; allergic disease.
XX
```

OS Synthetic.
XX
PN WO9951259-A2.
XX
PD 14-OCT-1999.
XX
PF 02-APR-1999; 99WO-US007335.
XX
PR 03-APR-1998; 98US-0080729P.
XX
PA (IOWA) UNIV IOWA RES FOUND.
XX
PI Krieg AM, Weiner G;
XX
DR WPI; 1999-620169/53.
XX
PT Novel synergistic combinations of immunostimulatory oligonucleotides and
PT immunopotentiating cytokines are useful for stimulating the immune
PT system.
XX
PS Example 8; Page 80; 91pp; English.
XX
CC Sequences AAZ41856-Z41949 are phosphorothioate CpG oligonucleotides which
CC are used in the invention to induce interleukin-12 (IL-12) secretion from
CC human PBMC. The invention comprises stimulating an immune response in a
CC subject comprising administering to a subject exposed to an antigen, an
CC immunopotentiating cytokine and an immunostimulatory CpG oligonucleotide
CC to induce a synergistic antigen specific immune response. The methods are
CC useful for treating cancer by stimulating an antigen specific immune
CC response against a cancer antigen. The methods can also be used to treat
CC neoplastic disorders in humans, including but not limited to: sarcoma,
CC carcinoma, fibroma, Lymphoma, melanoma, neuroblastoma, retinoblastoma,
CC and glioma. The methods are also useful for treating infectious diseases,
CC e.g. viral diseases such as HIV, bacterial diseases, and fungal diseases.
CC The methods may also be used to treat allergic diseases, e.g. asthma. The
CC methods and compositions may also be applied to treat cancer and tumours
CC in non human subjects, e.g. cats and dogs. Neoplasias affecting
CC agricultural livestock may also be treated and include leukaemia,
CC haemangiopericytoma and bovine ocular neoplasia. Chronic, infectious,
CC contagious diseases of sheep and goats caused by the bacterium
CC Corynebacterium pseudotuberculosis, and contagious lung tumour of sheep
CC caused by jaagsiekte may also be treated. CpG oligonucleotides can be
CC useful in activating B cells, NK cells, and antigen presenting cells,
CC such as monocytes and macrophages. CpG oligonucleotides enhance antibody
CC dependent cellular cytotoxicity and can be used as an adjuvant in
CC conjunction with tumour antigens to protect against a tumour challenge
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 80
AAX78803/c
ID AAX78803 standard; DNA; 18 BP.
XX
AC AAX78803;
XX
DT 06-SEP-1999 (first entry)
XX
DE HPV fusion protein CpG oligonucleotide 2.
XX
KW Fusion protein; E6 protein; E7 protein; E6/E7; immunomodulator; tumour;
KW immunological fusion partner; CpG oligonucleotide; immune response;
KW HPV antigen; prevention; treatment; primer; ss.
XX
OS Synthetic.
XX
OS Human papillomavirus.
XX
PN WO9933868-A2.
XX
PD 08-JUL-1999.
XX
PF 18-DEC-1998; 98WO-EP008563.
XX
PR 24-DEC-1997; 97GB-00027262.
XX
PA (SMIK) SMITHKLINE BEECHAM BIOLOGICALS.
XX
PI Dalemans WLJ, Gerard CMG;
XX
DR WPI; 1999-405485/34.
XX
PT Composition comprising an E6, E7 or E6/E7 fusion protein from HPV to
PT induce immune response to HPV.
XX
PS Claim 11; Page 37; 62pp; English.
XX
CC AAX78791-X78801 represent nucleic acid sequences which encode novel
CC constructs comprising an E6 or E7 protein or E6/E7 fusion protein from
CC HPV (represented in AAY25375-Y25386). These constructs are optionally
CC linked to an immunological fusion partner and an immunomodulatory CpG
CC oligonucleotide. The products of the invention can be used to induce an
CC immune response in a patient to an HPV antigen. They can also be used for
CC preventing or treating HPV induced tumours. This sequence represents a
CC CpG oligonucleotide which is used in the method of the invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 81
AAV99434/c
ID AAV99434 standard; DNA; 18 BP.
XX
AC AAV99434;
XX
DT 22-MAR-1999 (first entry)
XX
DE Antisense oligonucleotide directed against human bcl-2 gene.
XX
KW Antisense oligonucleotide; human bcl-2 gene; phosphorothioate;
KW phosphodiester; lipid-encapsulation; tumour; aberrant gene expression;
KW treatment; inflammation; infection; ss.
XX
OS Synthetic.
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT modified_base 1. .18
FT /*tag= a
FT /note= "phosphorothioate or phosphodiester bonds"
XX
PN WO9851278-A2.
XX
PD 19-NOV-1998.
XX
PF 14-MAY-1998; 98WO-CA000485.
XX
PR 14-MAY-1997; 97US-00856374.
XX
PA (INEX-) INEX PHARM CORP.
XX

PI Semple SC, Klimuk SK, Harasym T, Hope MJ, Ansell SM, Cullis P;
PI Scherrer P, Debeyer D;
XX
DR WPI; 1999-045179/04.
XX
PT Composition containing lipid-encapsulated therapeutic agent - useful,
PT e.g. for delivering antisense molecules or ribozymes or treating diseases
PT associated with aberrant gene expression.
XX
PS Disclosure; Page 23; 98pp; English.
XX
CC The present sequence represents an antisense oligonucleotide directed
CC against the human bcl-2 gene. The oligonucleotide can have either
CC phosphorothioate or phosphodiester bonds. The oligonucleotide is lipid-
CC encapsulated using the method of the invention. A composition comprising
CC lipid-encapsulated particles of a therapeutic agent, e.g. antisense
CC oligonucleotides, is prepared by mixing at least 2 lipids with buffered
CC aqueous solution of charged therapeutic agent to form an intermediate
CC mixture of lipid-encapsulated particles, and changing the pH of the
CC mixture to neutralise at least some of the external surface charges on
CC the particles. One lipid has a (de)protonatable group with Ka such that
CC the lipid is charged at a first pH but neutral at a second pH
CC (particularly near physiological pH) and the buffer maintains this lipid
CC in the charged form (i.e. cationic when the therapeutic agent is anionic
CC in the buffer, or vice versa). The second lipid prevents particle
CC aggregation during formation of the lipid-therapeutic agent particles.
CC The composition is used to introduce therapeutic agents into cells, in
CC vivo or in vitro, particularly to treat or prevent diseases associated
CC with aberrant gene expression in mammals, specifically tumours,
CC inflammation or infection
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 82
AAZ31944/c
ID AAZ31944 standard; DNA; 18 BP.
XX
AC AAZ31944;
XX
DT 26-JAN-2000 (first entry)
XX
DE CpG adjuvant oligo 1002.
XX
KW CpG adjuvant; vaccine; polyoxyethylene ether; polyoxyethylene ester;
KW antigen; infection; allergy; cancer; therapy; ss.
XX
OS Synthetic.
XX
PN WO9952549-A1.
XX
PD 21-OCT-1999.
XX
PF 29-MAR-1999; 99WO-EP002278.
XX
PR 09-APR-1998; 98GB-00007805.
PR 25-SEP-1998; 98GB-00020956.
XX
PA (SMIK) SMITHKLINE BEECHAM BIOLOGICALS.
XX
PI Friede M, Hermand P;
XX
DR WPI; 1999-620290/53.
XX
PT Vaccine to protect against infections, allergy and cancer.
XX
PS Example 9; Page 26; 52pp; English.
XX
CC This sequence represents a CpG adjuvant that can be used in the vaccine
CC composition of the invention. The vaccine comprises a polyoxyethylene
CC ether or ester (I), not in the form of a vesicle, pharmaceutically
CC acceptable excipient and an antigen (Ag) or antigenic composition. The
CC vaccine can be used to treat or prevent infections (by bacteria, viruses
CC or other parasites), allergy and cancer. (I), which are safe, easy to
CC sterilize and simple to administer, are powerful vaccine adjuvants, able
CC to induce a systemic immune response when administered (non-invasively)
CC to the mucosa. The response is at least as good as that from conventional
CC systemic injection. (I) are effective at low concentration, have low
CC reactogenicity and are well tolerated
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 83
AAX27536
ID AAX27536 standard; RNA; 18 BP.
XX
AC AAX27536;
XX
DT 27-MAY-1999 (first entry)
XX
DE Synthetic RNA sequence produced by the method of the invention.
XX
KW Silyloxymethyl; phosphonate; silyloxymethyl halide; diagnosis; ss;
KW cyanoethyl phosphoramidate coupling; isomerisation; steric hindrance.
XX
OS Synthetic.
XX
PN WO9909044-A1.
XX
PD 25-FEB-1999.
XX
PF 17-AUG-1998; 98WO-EP005215.
XX
PR 18-AUG-1997; 97CH-00001931.
XX
PA (PITS/) PITSCH S.
PA (WEIS/) WEISS P A.
PA (JENN/) JENNY L.
XX
PI Pitsch S, Weiss PA, Jenny L;
XX
DR WPI; 1999-180963/15.
XX
PT 2-Silyloxymethyl ribonucleosides and their phosphonate derivatives - have
PT high purity, use in machine synthesis of ribonucleic acids, enable longer
PT oligonucleotide chain construction, and larger amounts.
XX
PS Example 7; Page 26; 38pp; English.
XX
CC The invention relates to silyloxymethyl protected D- or L-ribonucleosides
CC and their phosphonates (I), and silyloxymethyl halides (II). (I) are
CC intermediates for synthesis of RNA-oligonucleotides with predetermined
CC nucleotide sequence, particularly by machine synthesis. The groups
CC specified above, apart from those on silyl, are those particularly for
CC the cyanoethyl phosphoramidate coupling. Uses of the oligoribonucleotide
CC products in diagnosis, therapy, and as research tools, are well known,
CC and are not dealt with in detail. (II) is an intermediate for (I). The
CC silyloxymethyl halide reagent is easy to prepare, and yields are high.
CC Introduction of the silyloxymethyl group into the ribonucleoside is

CC simple and rapid, and the acetal bond formed does not migrate,
CC eliminating particularly the prior art problem of 2' to 3' isomerisation.
CC The methylenedioxy group spacer between the silyl group and nucleoside
CC ring results in less steric hindrance than bulky direct silyloxy
CC linkages, enabling first, a range of choices for the silyl substituents,
CC to provide, e.g., acid or base stability; and second, higher yields in
CC coupling. Purer products are therefore obtained than in prior art,
CC enabling larger quantities and longer chains of oligoribonucleotides to
CC be synthesised successfully, and in shorter times
XX
SQ Sequence 18 BP; 4 A; 4 C; 8 G; 0 T; 2 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 88.9%; Pred. No. 79;
Matches 16; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
|:||||||||:||||||
Db 1 AUGGCGCACGCUGGGAGA 18

RESULT 84
AAX18702/c
ID AAX18702 standard; DNA; 18 BP.
XX
AC AAX18702;
XX
DT 10-MAY-1999 (first entry)
XX
DE Target bcl-2 antisense oligonucleotide BCL-2.
XX
KW Cellular adhesion protein; proliferation; antisense oligonucleotide;
KW alimentary canal; transport; gastrointestinal mucosa; cancer;
KW Alzheimer's disease; beta-thalassemia; malaria; viral infection; HIV;
KW inflammation; ss.
XX
OS Synthetic.
XX
PN WO9901579-A1.
XX
PD 14-JAN-1999.
XX
PF 01-JUL-1998; 98WO-US013574.
XX
PR 01-JUL-1997; 97US-00886829.
XX
PA (ISIS-) ISIS PHARM INC.
XX
PI Teng C, Hardee G;
XX
DR WPI; 1999-106077/09.
XX
PT Composition comprising nucleic acid and penetration enhancer - used
PT particularly for delivering therapeutic antisense oligonucleotides across
PT the gastrointestinal mucosa, provides high bioavailability.
XX
PS Example 2; Page 86; 115pp; English.
XX
CC A pharmaceutical composition has been developed which comprises a nucleic
CC acid and at least one penetration enhancer. The compositions are used:
CC (i) to treat or prevent any disease or disorder that can be treated with
CC the nucleic acid, e.g. cancer, Alzheimer's disease, beta-thalassemia,
CC malaria, viral infections (including human immune deficiency virus
CC (HIV)), inflammation, in human or animal medicine; (ii) to investigate
CC the role of a gene or gene product in non-human animals; and (iii) to
CC modulate gene expression in cells, tissues or organs. The compositions
CC provide bioavailability of at least 15, preferably 17-35,%. The
CC penetration enhancer improves: (i) transport of the nucleic acid across
CC the mucosa of the alimentary canal and into cells; and (ii) increases
CC stability of the nucleic acid. Oral administration avoids the
CC complications and expense of intravenous or other methods of
CC administration. AAX18669 to AAX18799 and AAX18801 represent antisense
CC oligonucleotides which can be used as the nucleic acid in the method of
CC the invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 85
AAX88537/c
ID AAX88537 standard; DNA; 18 BP.
XX
AC AAX88537;
XX
DT 10-SEP-1999 (first entry)
XX
DE Cytosine-guanosine dinucleotide motif oligonucleotide #4.
XX
KW Cytosine-guanosine dinucleotide motif; CpG; immunomodulation;
KW unmethylated; vaccine; immunostimulation; immune response;
KW T-independent type 1 antigen; T-independent type 2 antigen;
KW polysaccharide conjugate antigen; ss.
XX
OS Synthetic.
XX
PN WO9933488-A2.
XX
PD 08-JUL-1999.
XX
PF 18-DEC-1998; 98WO-EP008562.
XX
PR 24-DEC-1997; 97GB-00027262.
XX
PA (SMIK) SMITHKLINE BEECHAM BIOLOGICALS.
XX
PI Dalemans WLJ, Laferriere CAJ, Prieels J;
XX
DR WPI; 1999-405369/34.
XX
PT A vaccine composition for inducing a immune response to T-independent
PT type 1 or type 2 antigen or polysaccharide conjugate antigen.
XX
PS Claim 6; Page 31; 35pp; English.
XX
CC The present invention describes a formulation (A) comprising a cytosine-
CC guanosine dinucleotide motif (CpG) oligonucleotide and T-independent type
CC 1 or type 2 antigens or polysaccharide conjugate antigen. The present
CC sequence represent a specifically claimed CpG oligonucleotide. A vaccine
CC composition comprising the formulation is used for inducing a immune
CC response to T-independent type 1 or type 2 antigen or polysaccharide
CC conjugate antigen. The use of immunostimulatory CpG oligonucleotide acts
CC as an adjuvant to pneumococcal polysaccharides
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 86
AAX33514/c
ID AAX33514 standard; DNA; 18 BP.
XX

```
AC   AAX33514;
XX
DT   07-JUL-1999  (first entry)
XX
DE   BCL2-targeted antisense oligonucleotide SEQ ID NO:45.
XX
KW   Conbinatorial antisense library; oligonucleotide analogue; RNase;
KW   ribozyme; cleavage; anchor; binding; target RNA; ss.
XX
OS   Synthetic.
XX
PN   WO9918238-A1.
XX
PD   15-APR-1999.
XX
PF   28-SEP-1998;   98WO-US020361.
XX
PR   02-OCT-1997;   97US-0060673P.
PR   18-AUG-1998;   98US-00136080.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Riley TA,  Brown BD,  Arnold LJ;
XX
DR   WPI; 1999-264039/22.
XX
PT   Oligonucleotide analog compositions capable of coupling to form antisense
PT   molecules.
XX
PS   Example 9; Page 45; 71pp; English.
XX
CC   The present invention describes a composition comprising two
CC   oligonucleotide analogues, each having a binding domain and a coupling
CC   moiety, where the binding domains are capable of hybridizing to a target
CC   polynucleotide and the coupling moieties are capable of coupling to each
CC   other in the absence of a target molecule. The composition/compound is
CC   used to cleave an RNA target. The compositions can be used to determine
CC   an optimal antisense site for a given mRNA or an optimal ribozyme
CC   cleavage site for a target RNA. By separating the antisense molecules
CC   into two or more pieces, a comprehensive antisense library can be
CC   prepared in advance, rather than synthesizing a plurality of candidate
CC   antisense molecules as needed. A complete library of every possible 17-
CC   mer oligonucleotide, using the four natural bases, would consist of 417
CC   (or about 1.7 x 1010) molecules. By providing the antisense molecules in
CC   at least two components, e.g. a library of 8-mers and a library of 9-
CC   mers, assembled quickly as needed, the library size is reduced to 48 +
CC   49, or 327 650 molecules. The complexity of the library can be further
CC   reduced by substituting one or more universal or degenerate bases for
CC   some of the natural bases. The present sequence represents an
CC   oligonucleotide, which is used in an example from the present invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 87
AAX23693/c
ID   AAX23693 standard; DNA; 18 BP.
XX
AC   AAX23693;
XX
DT   18-JUN-1999  (first entry)
XX
DE   Deletion sequence oligonucleotide 146.
XX
KW   Deletion sequence oligonucleotide; sensor array; eukaryotic pathogen;
KW   probe; cellular adhesion modulator; cellular proliferation modulator;
KW   human retrovirus; human immunodeficiency virus; non-human retrovirus;
KW   HIV; primer; ss.
XX
OS   Synthetic.
XX
PN   WO9911820-A1.
XX
PD   11-MAR-1999.
XX
PF   01-SEP-1998;   98WO-US018084.
XX
PR   02-SEP-1997;   97US-00923771.
XX
PA   (ISIS-) ISIS PHARM INC.
XX
PI   Chen D,  Srivatsa GS;
XX
DR   WPI; 1999-205198/17.
XX
PT   New compositions comprising sensor arrays made up of unique probe
PT   oligonucleotides - useful for characterizing a sample of target deletion
PT   oligonucleotides.
XX
PS   Example 9; Page 152; 163pp; English.
XX
CC   This invention describes a novel composition comprising a number of
CC   sensor arrays, where each array comprises a unique probe oligonucleotide,
CC   which is the reverse complement of part of a unique target
CC   oligonucleotide present in a mixture of target deletion sequence
CC   oligonucleotides. The compositions form a method for characterizing a
CC   sample of target deletion oligonucleotides which are labelled and
CC   hybridize with the probe oligonucleotides of the sensor arrays. Such
CC   oligonucleotides and their targets are represented in AAX23548-X23709.
CC   Oligonucleotides characterized by the method form pharmaceutical
CC   compositions that are useful for modulating cellular adhesion or
CC   proliferation, and being active against a eukaryotic pathogen, a human
CC   retrovirus, a human immunodeficiency virus (HIV), or a non-human
CC   retrovirus, including influenza virus, Epstein-Barr virus, Respiratory
CC   Syncytial Virus or cytomegalovirus (CMV). The compositions enable
CC   characterization of deletion sequence oligonucleotides having related,
CC   but different nucleobase sequences, and quantification of different
CC   species of deletion sequence ("target") oligonucleotides in a mixture.
CC   Also, if the specificity of the oligonucleotide's nucleobase sequence for
CC   its reverse complement is not modified, the method may be performed using
CC   oligodeoxynucleotides
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 88
AAZ60975/c
ID   AAZ60975 standard; DNA; 18 BP.
XX
AC   AAZ60975;
XX
DT   30-MAY-2000  (first entry)
XX
DE   Nucleotide sequence of an immunostimulatory CpG oligonucleotide.
XX
KW   Immunostimulatory; stereoisomer; CpG oligonucleotide; Th2; Th1; asthma;
KW   allergic reaction; allergen; cancer antigen; cancer; immunoinhibitory;
KW   inflammatory disease; inflammatory bowel disease; autoimmune disease;
KW   gingivitis; psoriasis; sepsis; ss.
XX
```

OS Synthetic.
XX
PN WO200006588-A1.
XX
PD 10-FEB-2000.
XX
PF 27-JUL-1999; 99WO-US017100.
XX
PR 27-JUL-1998; 98US-0094370P.
XX
PA (IOWA) UNIV IOWA RES FOUND.
PA (CPGI-) CPG IMMUNOPHARMACEUTICALS INC.
XX
PI Krieg AM;
XX
DR WPI; 2000-195254/17.
XX
PT Immunostimulatory and immunoinhibitory stereoisomers of CpG
PT oligonucleotides useful for immunotherapy of cancer.
XX
PS Disclosure; Page 11; 88pp; English.
XX
CC AAZ60933-Z61015 represent immunostimulatory stereoisomers of CpG
CC oligonucleotides. The sequences are derived from generic nucleic acid
CC sequence, from which immunoinhibitory sequences may also be derived. The
CC immunostimulatory nucleic acids can be co-administered with an antigen to
CC induce an antigen-specific immune response. The immunostimulatory nucleic
CC acids can also be used in methods for redirecting a subject's immune
CC response from a Th2 to a Th1, for treating asthma, for desensitising a
CC subject against the occurrence of an allergic reaction in response to
CC contact with an allergen, for activating an immune cell, especially a
CC lymphocyte or a dendritic cell expressing a cancer antigen or for
CC treating cancer. The immunoinhibitory nucleic acid can be used to prevent
CC an immune response, especially where the immune response in the subject
CC is excessive due to having received an immune stimulating compound. The
CC immunoinhibitory nucleic acid can be used to treat a subject having or at
CC risk of an inflammatory disease, especially inflammatory bowel disease,
CC autoimmune disease, gingivitis, psoriasis and sepsis
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 89
AAZ48024/c
ID AAZ48024 standard; DNA; 18 BP.
XX
AC AAZ48024;
XX
DT 08-MAR-2000 (first entry)
XX
DE Immune remodeling inducing CpG oligonucleotide SEQ ID NO:104.
XX
KW Haematopoiesis; regulation; CpG oligonucleotide; phosphorothioate;
KW immune remodeling; thrombopoiesis; anaemia; immune system; cancer;
KW immune response; allergic reaction; infectious disease; asthma;
KW thrombocytopaenia; immunohaemolytic disorder; genetic disorder;
KW haemoglobinopathy; kidney failure; chronic inflammatory disorder;
KW rheumatoid arthritis; ss.
XX
OS Synthetic.
XX
PN WO9958118-A2.
XX
PD 18-NOV-1999.
XX
PF 14-MAY-1999; 99WO-IB001285.
XX
PR 14-MAY-1998; 98US-0085516P.
PR 02-FEB-1999; 99US-00241653.
XX
PA (CPGI-) CPG IMMUNOPHARMACEUTICALS GMBH.
PA (CPGI-) CPG IMMUNOPHARMACEUTICALS INC.
XX
PI Wagner H, Lipford G;
XX
DR WPI; 2000-062261/05.
XX
PT Use of CpG containing oligonucleotides for, e.g. inducing an antigen-
PT specific immune response.
XX
PS Example 1; Page 67; 116pp; English.
XX
CC The present invention describes a method using CpG containing
CC oligonucleotides (ONs) for regulating immune system remodeling and for
CC regulating haematopoiesis. The method for inducing an antigen-specific
CC immune response comprises: (1) administering an ON having a sequence
CC including at least the formula (I); and (2) exposing the subject to an
CC antigen at least 3 days after the ON is administered to the subject to
CC produce an antigen-specific immune response: 5' X1CGX2 3' (I), where the
CC ON = includes at least 8 nucleotides; C and G = unmethylated, and X1 and
CC X2 = nucleotides. The method can be used for inducing an immune response
CC against an antigen such as cells, cell extracts, proteins,
CC polysaccharides, polysaccharide conjugates, lipids, glycolipids,
CC carbohydrate, viral extracts, viruses, bacteria, fungi, parasites and
CC allergens. It can be used in a subject at risk of developing cancer or an
CC allergic reaction. It can also be used for treating an infectious
CC disease, allergic diseases and asthma, as well as thrombocytopaenia which
CC is drug-induced, due to an autoimmune disorder such as idiopathic
CC thrombocytopenic purpura, or resulting from accidental or therapeutic
CC radiation exposure. It can also be used for treating anaemia such as drug
CC -induced anaemia, immunohaemolytic disorder, genetic disorders such as
CC haemoglobinopathy and inherited haemolytic anaemia, inadequate production
CC despite adequate iron stores, chronic disease such as kidney failure, and
CC chronic inflammatory disorder such as rheumatoid arthritis, or anaemia
CC resulting from accidental or therapeutic radiation exposure. AAZ47932 to
CC AAZ48029 represent phosphorothioate CpG oligonucleotides used in the
CC exemplification of the present invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 90
AAZ47981/c
ID AAZ47981 standard; DNA; 18 BP.
XX
AC AAZ47981;
XX
DT 08-MAR-2000 (first entry)
XX
DE Immune remodeling inducing CpG oligonucleotide SEQ ID NO:59.
XX
KW Haematopoiesis; regulation; CpG oligonucleotide; phosphorothioate;
KW immune remodeling; thrombopoiesis; anaemia; immune system; cancer;
KW immune response; allergic reaction; infectious disease; asthma;
KW thrombocytopaenia; immunohaemolytic disorder; genetic disorder;
KW haemoglobinopathy; kidney failure; chronic inflammatory disorder;
KW rheumatoid arthritis; ss.
XX
OS Synthetic.
XX

```
PN   WO9958118-A2.
XX
PD   18-NOV-1999.
XX
PF   14-MAY-1999;   99WO-IB001285.
XX
PR   14-MAY-1998;   98US-0085516P.
PR   02-FEB-1999;   99US-00241653.
XX
PA   (CPGI-) CPG IMMUNOPHARMACEUTICALS GMBH.
PA   (CPGI-) CPG IMMUNOPHARMACEUTICALS INC.
XX
PI   Wagner H,  Lipford G;
XX
DR   WPI; 2000-062261/05.
XX
PT   Use of CpG containing oligonucleotides for, e.g. inducing an antigen-
PT   specific immune response.
XX
PS   Example 1; Page 66; 116pp; English.
XX
CC   The present invention describes a method using CpG containing
CC   oligonucleotides (ONs) for regulating immune system remodeling and for
CC   regulating haematopoiesis. The method for inducing an antigen-specific
CC   immune response comprises: (1) administering an ON having a sequence
CC   including at least the formula (I); and (2) exposing the subject to an
CC   antigen at least 3 days after the ON is administered to the subject to
CC   produce an antigen-specific immune response: 5' X1CGX2 3' (I), where the
CC   ON = includes at least 8 nucleotides; C and G = unmethylated, and X1 and
CC   X2 = nucleotides. The method can be used for inducing an immune response
CC   against an antigen such as cells, cell extracts, proteins,
CC   polysaccharides, polysaccharide conjugates, lipids, glycolipids,
CC   carbohydrate, viral extracts, viruses, bacteria, fungi, parasites and
CC   allergens. It can be used in a subject at risk of developing cancer or an
CC   allergic reaction. It can also be used for treating an infectious
CC   disease, allergic diseases and asthma, as well as thrombocytopaenia which
CC   is drug-induced, due to an autoimmune disorder such as idiopathic
CC   thrombocytopenic purpura, or resulting from accidental or therapeutic
CC   radiation exposure. It can also be used for treating anaemia such as drug
CC   -induced anaemia, immunohaemolytic disorder, genetic disorders such as
CC   haemoglobinopathy and inherited haemolytic anaemia, inadequate production
CC   despite adequate iron stores, chronic disease such as kidney failure, and
CC   chronic inflammatory disorder such as rheumatoid arthritis, or anaemia
CC   resulting from accidental or therapeutic radiation exposure. AAZ47932 to
CC   AAZ48029 represent phosphorothioate CpG oligonucleotides used in the
CC   exemplification of the present invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 91
AAA14470/c
ID   AAA14470 standard; DNA; 18 BP.
XX
AC   AAA14470;
XX
DT   21-AUG-2000  (first entry)
XX
DE   Phosphorothioate oligonucleotide.
XX
KW   Immunostimulatory oligonucleotide; adjuvant; mucosal immunity;
KW   secretory immunoglobulin A production; sIgA; Th1 phenotype;
KW   toxicity study; BCL-2; human; ds.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .18
FT                    /*tag=  a
FT                    /note= "Phosphorothioate linkages"
XX
PN   WO200020039-A1.
XX
PD   13-APR-2000.
XX
PF   15-SEP-1999;   99WO-US021203.
XX
PR   05-OCT-1998;   98US-00167039.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Raz E,  Horner AA,  Carson DA;
XX
DR   WPI; 2000-303647/26.
XX
PT   Immunostimulatory oligonucleotide adjuvant induces mucosal immunity to an
PT   antigen in a mammalian host through production of secretory
PT   immunoglobulin A.
XX
PS   Example 5; Page 26; 64pp; English.
XX
CC   The invention relates to a method of inducing mucosal immunity to an
CC   antigen in a mammalian host, including the the production of secretory
CC   immunoglobulin A (sIgA). Immune protection in the mucosa (the principal
CC   site of entry of most foreign antigens) is mediated by mucosa-associated
CC   lymphoid tissue, epithelial and distinct B-cell, T-cell and accessory
CC   cell sub-populations. The primary immune response which characterises the
CC   induction of mucosal immunity to an antigen is sIgA production by
CC   activated B-cells. The method comprises introducing an immunostimulatory
CC   oligonucleotide (ISS-ODN) and the antigen into host mucosa, where the ISS
CC   -ODN includes a core nucleotide sequence. The core nucleotide sequence is
CC   5'-Purine-Purine-C-G-Pyrimidine-Pyrimidine-3', specific examples of which
CC   are AACGTT, AGCGTC and GACGTT (SEQ ID NOs 1-3). A specific example of an
CC   ISS-ODN is DY1018 (AAA14467). The ISS-ODN is used as an adjuvant with an
CC   antigen for stimulating mucosal immunity. The level of sIgA production
CC   induced in the host is at least 3 times the magnitude of sIgA production
CC   achievable in response to introduction of antigen alone into the mucosal
CC   tissue and is equivalent or greater than the magnitude of sIgA production
CC   achievable in response to introduction of the antigen and cholera toxin
CC   adjuvant into the mucosal tissue. The host immune response is stimulated
CC   to antigen specific IgA production, biased towards the Th1 phenotype
CC   while antigen-induced IgE production is avoided. The adjuvant has little
CC   or no known toxicity in mammals and its efficacy is comparable to that of
CC   cholera toxin which is used as a mucosal adjuvant. The present sequence
CC   represents a human BCL-2 phosphorothioate oligonucleotide previously used
CC   in toxicity studies in humans. The study indicates that the ISS-ODNs of
CC   the invention should not cause significant toxicity
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 92
AAZ87997/c
ID   AAZ87997 standard; DNA; 18 BP.
XX
AC   AAZ87997;
XX
DT   31-MAY-2000  (first entry)
XX
DE   BBTE-labeled oligonucleotide.
```

```
XX
KW   Fluorescence; dibenzazole derivative; enzyme detection;
KW   fluorescent acid-base indicator; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1
FT                   /*tag=  a
FT                   /note= "BBTE-labeled"
XX
PN   WO200004007-A1.
XX
PD   27-JAN-2000.
XX
PF   16-JUL-1999;   99WO-US016123.
XX
PR   17-JUL-1998;   98US-00118220.
PR   21-JUL-1998;   98WO-US015080.
XX
PA   (PROM-) PROMEGA BIOSCIENCES INC.
XX
PI   Brown LR,  Xu C;
XX
DR   WPI; 2000-237208/20.
XX
PT   New fluorescent dibenzazole derivatives useful as acid-base indicators or
PT   in biological assays, e.g., for detection of enzymes, DNA or antibodies
PT   in samples.
XX
PS   Example 11; Page 31; 52pp; English.
XX
CC   The invention provides fluorescent dibenzazole derivatives of specified
CC   formulae. The derivatives are fluorescent compounds which may be used for
CC   detection of agents in samples. They may be used, e.g., for detection of
CC   enzymes in biological samples, detection of antibodies to specific
CC   analytes conjugated with appropriate enzymes, or detection of protein,
CC   DNA or RNA samples directly or indirectly with enzymes using gels and
CC   membranes for separation and visualization. Typically, the compound is
CC   added to a biological sample and the hydrolysis of the compound is
CC   detected by fluorescence. They can also be used as fluorescent acid-base
CC   indicators. The derivatives are stable in a variety of aqueous
CC   environments, and have solubility characteristics suitable for various
CC   applications. They can be used at a variety of pH ranges. They are easily
CC   detectable above background interference, and exhibit large Stokes'
CC   shifts. The present sequence represents a labeled oligonucleotide used in
CC   the course of the invention,
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 93
AAZ46800
ID   AAZ46800 standard; DNA; 18 BP.
XX
AC   AAZ46800;
XX
DT   31-MAR-2000  (first entry)
XX
DE   Human Bcl-2 gene amplifying forward primer.
XX
KW   Progesterone; transdermal; cancer; breast cancer; plasma; human;
KW   cytostatic; Bcl-2 gene; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO9959595-A1.
XX
PD   25-NOV-1999.
XX
PF   18-MAY-1999;   99WO-US011002.
XX
PR   20-MAY-1998;   98US-00081869.
XX
PA   (WILE/) WILEY T S.
PA   (FORM/) FORMBY B.
XX
PI   Wiley TS,  Formby B;
XX
DR   WPI; 2000-105568/09.
XX
PT   Composition for treating and preventing breast cancer.
XX
PS   Disclosure; Page 8; 23pp; English.
XX
CC   The invention provides a composition comprising exogenous natural
CC   progesterone suitable for transdermal delivery and maintaining the plasma
CC   concentration of natural progesterone above 10 ng/ml. The composition is
CC   applied topically for treating or preventing cancer in a patient whose
CC   plasma natural progesterone level is less than 10 ng/ml. The composition
CC   and method are useful for treating breast cancer by regulating the
CC   natural progesterone level in person's plasma. Prevention of cancer can
CC   also be secured. Progesterone application also exhibit protection or
CC   therapeutic activity in management of other forms of cancer. Sequences
CC   AAZ46800-801 represents PCR primers for amplifying the human Bcl-2 gene
XX
SQ   Sequence 18 BP; 2 A; 6 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        264 GGTGCCACCTGTGGTCCA 281
              ||||||||||||||||||
Db          1 GGTGCCACCTGTGGTCCA 18


RESULT 94
AAZ47850/c
ID   AAZ47850 standard; DNA; 18 BP.
XX
AC   AAZ47850;
XX
DT   07-MAR-2000  (first entry)
XX
DE   Immunostimulatory oligonucleotide sequence SEQ ID NO:51.
XX
KW   Mucosal immunity; immunostimulatory; CpG motif; immune response; antigen;
KW   allergic reaction; cancer; infectious disease; asthma; eczema;
KW   allergic rhinitis; coryza; hay fever; conjunctivitis; bronchial asthma;
KW   urticaria; food allergy; atopic condition; mucosal delivery; ss.
XX
OS   Synthetic.
XX
PN   WO9961056-A2.
XX
PD   02-DEC-1999.
XX
PF   21-MAY-1999;   99WO-US011359.
XX
PR   22-MAY-1998;   98US-0086393P.
XX
PA   (LOEB-) LOEB HEALTH RES INST AT OTTAWA HOSPITAL.
PA   (CPGI-) CPG IMMUNOPHARMACEUTICALS INC.
XX
PI   Mccluskie MJ,  Davis HL;
XX
DR   WPI; 2000-062585/05.
```

```
XX
PT   Use of CG containing oligonucleotides as adjuvants for inducing an immune
PT   response.
XX
PS   Disclosure; Page 25; 116pp; English.
XX
CC   The present invention describes a method using CpG containing
CC   oligonucleotides (ONs) as adjuvants for inducing an immune response. The
CC   method for inducing a mucosal immune response (MIR) comprises: (1)
CC   administering to a mucosal surface of a subject an ON, having a sequence
CC   including at least the formula (I); and (2) exposing the subject to an
CC   antigen to induce the MIR, where the antigen is not encoded in a nucleic
CC   acid vector: 5'X1X2CGX3X43' (I), where C and G = unmethylated, and X1,
CC   X2, X3 and X4 = nucleotides. The method can be used for treating a
CC   subject at risk of developing an allergic reaction, cancer or infectious
CC   disease. It can be used for treating asthmatic subjects, eczema, allergic
CC   rhinitis or coryza, hay fever, conjunctivitis, bronchial asthma,
CC   urticaria, food allergies or other atopic conditions. The antigen may be
CC   derived from infectious organisms such as infectious bacteria, viruses,
CC   parasites or fungi. It can be used in humans or animals, e.g. bovine,
CC   equine, feline, swine, aquatic or avian species. The ONs act as potent
CC   mucosal adjuvants to induce immune responses at both local and remote
CC   sites against an antigen administered to the mucosal tissue. Both
CC   systemic and mucosal immunity are induced by mucosal delivery of the ONs.
CC   AAZ47808 to AAZ47891 represent examples of immunostimulatory
CC   oligonucleotides given in the present invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 95
AAA38517/c
ID   AAA38517 standard; DNA; 18 BP.
XX
AC   AAA38517;
XX
DT   29-AUG-2000  (first entry)
XX
DE   Oligonucleotide used to make DNA/topotecan liposomal complexes.
XX
KW   Camptothecin; lactone form; chemotherapy; drug delivery; topotecan; TPT;
KW   Hycamtin; liposome; oligonucleotide; drug complex; anticancer;
KW   topoisomerase inhibitor; gene therapy; ds.
XX
OS   Unidentified.
XX
PN   WO200021370-A1.
XX
PD   20-APR-2000.
XX
PF   14-OCT-1998;   98WO-US020941.
XX
PR   14-OCT-1998;   98WO-US020941.
XX
PA   (KENT ) UNIV KENTUCKY RES FOUND.
XX
PI   Yang D,  Demir AS,  Chavan AJ,  Burke TG;
XX
DR   WPI; 2000-329047/28.
XX
PT   New chemotherapeutic compositions comprising an oligonucleotide-
PT   camptothecin drug complex, useful for treating cancers in a combination
PT   therapy.
XX
PS   Example 3; Page 65; 87pp; English.
XX
CC   The invention relates to a novel chemotherapeutic composition comprising
CC   an oligonucleotide-camptothecin drug complex. The complex incorporates
CC   the active lactone form of a camptothecin drug, and the camptothecin
CC   dissociates from the oligonucleotide within the cell to exert its
CC   therapeutic activities. Camptothecin family compounds are anticancer
CC   drugs which function by inhibiting topoisomerase I (TopoI), thus
CC   inhibiting DNA replication. The compositions containing the
CC   oligonucleotide-camptothecin complex, which may be incorporated into a
CC   viral or a non-viral vector, are used for combined gene and camptothecin
CC   drug therapy in the treatment of cancer. The oligonucleotide can bind
CC   selectively the lactone forms of camptothecins, conserving the agents in
CC   their biologically active lactone forms. The compositions are stabilised
CC   over a wide pH range and can provide for the controlled, targeted and
CC   stable delivery of a camptothecin drug to target tissue. In addition to
CC   stabilising camptothecin, the oligonucleotides carried in the vectors can
CC   serve an additional role as gene therapy agents. This may augment the
CC   effects of camptothecin on the host target tissue. The present sequence
CC   represents an oligonucleotide of unknown origin used in an
CC   exemplification of the invention. This oligonucleotide was complexed with
CC   the camptothecin anticancer drug topotecan (TPT, Hycamtin) and
CC   encapsulated in liposomes
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 96
AAA90450/c
ID   AAA90450 standard; DNA; 18 BP.
XX
AC   AAA90450;
XX
DT   10-JAN-2001  (first entry)
XX
DE   CpG adjuvant oligonucleotide, SEQ ID NO:4.
XX
KW   CpG oligonucleotide; CpG motif; adjuvant; microdroplet emulsion;
KW   microemulsion; adsorbent microparticle; vaccine; Th1 immune response;
KW   viral infection; bacterial infection; parasitic infection; HCV; HBV;
KW   hepatitis C virus; hepatitis B virus; herpes simplex virus; HSV; HIV;
KW   human immunodeficiency virus; cytomegalovirus; CMV; influenza virus;
KW   rabies virus; cholera; diphtheria; tetanus; pertussis;
KW   Helicobacter pylori; Haemophilus influenzae; malaria; ss.
XX
OS   Synthetic.
XX
PN   WO200050006-A2.
XX
PD   31-AUG-2000.
XX
PF   09-FEB-2000; 2000WO-US003331.
XX
PR   26-FEB-1999;   99US-0121858P.
PR   29-JUL-1999;   99US-0146391P.
PR   28-OCT-1999;   99US-0161997P.
XX
PA   (CHIR ) CHIRON CORP.
XX
PI   O'hagan D,  Ott GS,  Donnelly J,  Kazzaz J,  Ugozzoli M,  Singh M;
PI   Barackman J;
XX
DR   WPI; 2000-587123/55.
XX
PT   Microemulsion having an adsorbent surface comprising a microdroplet
PT   emulsion consisting of a metabolizable oil and an emulsifying agent which
```

PT is a detergent, useful as a vaccine to treat bacterial, viral, and
PT parasitic infection.
XX
PS Claim 17; Page 40; 95pp; English.
XX
CC The invention relates to a microdroplet emulsion (microemulsion) with an
CC adsorbent surface, and which comprises a metabolisable oil and an
CC emulsifying agent (a detergent). It also relates to a composition
CC comprising the microemulsion and a microparticle with an adsorbent
CC surface, where the microparticle comprises a polymer selected from a
CC poly(alpha-hydroxy acid), a polyhydroxy butyric acid, a polycaprolactone,
CC a polyorthoester, a polyanhydride, and a polycyanoacrylate, and a second
CC detergent. The surface of the microparticles efficiently adsorb
CC biologically active macromolecules such as DNA, polypeptides, antigens,
CC hormones, pharmaceuticals, enzymes, mediators of transcription or
CC translation, metabolic intermediates and adjuvants. Additionally, a
CC second biologically active molecule may be encapsulated within the
CC microparticle. The microemulsion can be used in methods of immunising a
CC host animal, particularly a human, against a viral, bacterial or
CC parasitic infection, and in methods of increasing a Th1 immune response.
CC The microemulsions (having the appropriate antigens adsorbed) may be
CC particularly used as vaccines for hepatitis C virus (HCV), hepatitis B
CC virus (HBV), herpes simplex virus (HSV), human immunodeficiency virus
CC (HIV), cytomegalovirus (CMV), influenza virus, and rabies virus; the
CC bacteria which cause cholera, diphtheria, tetanus and pertussis;
CC Helicobacter pylori and Haemophilus influenzae; and malaria-causing
CC parasites. Sequences AAA90447-A90467 represent Th1 lymphocyte stimulating
CC oligonucleotides containing at least one CpG motif which are claimed for
CC use as adjuvants in the compositions of the invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 97
AAZ99003/c
ID AAZ99003 standard; DNA; 18 BP.
XX
AC AAZ99003;
XX
DT 21-JUN-2000 (first entry)
XX
DE CpG motif for immunostimulatory oligonucleotide 1758.
XX
KW Immunoprotective; vaccine; antigen; saponin adjuvant; immune response;
KW immunostimulatory oligonucleotide; unmethylated CpG dinucleotide; mammal;
KW human; animal; ss.
XX
OS Synthetic.
XX
PN WO200009159-A1.
XX
PD 24-FEB-2000.
XX
PF 06-AUG-1999; 99WO-US017956.
XX
PR 10-AUG-1998; 98US-0095913P.
PR 08-APR-1999; 99US-0128608P.
XX
PA (AQUI-) AQUILA BIOPHARMACEUTICALS INC.
XX
PI Kensil CA;
XX
DR WPI; 2000-224181/19.
XX
PT A vaccine composition comprising an antigen, saponin adjuvant and
PT immunostimulatory CpG oligonucleotide, useful for stimulating immunity
PT and increasing immune responses.
XX
PS Claim 10; Page 19; 38pp; English.
XX
CC The invention relates to a vaccine composition comprising an antigen, a
CC saponin adjuvant and an immunostimulatory oligonucleotide. The
CC immunostimulatory oligonucleotide preferably comprises at least one
CC unmethylated CpG dinucleotide. This sequence represents an example of the
CC immunostimulatory oligonucleotide. The vaccine composition increases the
CC immune response to the antigen when administered to a mammal, especially
CC a human or animal. It further stimulates immunity and especially enhances
CC antibody production to the antigen, preferably in a positive synergistic
CC manner. It further enhances cell-mediated immunity. The immune adjuvant
CC in particular can be used to increase the immune response to an antigen
CC in an individual or a test system
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 98
AAZ98660/c
ID AAZ98660 standard; DNA; 18 BP.
XX
AC AAZ98660;
XX
DT 05-JUN-2000 (first entry)
XX
DE Human Bcl-2 therapeutic antisense oligonucleotide sequence Bcl-2.
XX
KW Antisense oligonucleotide; phosphorothioate; inflammatory disease; Bcl-2;
KW tumour; gene therapy; aberrant gene expression; treatment;
KW infectious disease; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT misc_feature 1. .18
FT /*tag= a
FT /note= "Optionally phosphorothioate internucleotide
FT linkages"
XX
PN CA2271582-A1.
XX
PD 14-NOV-1999.
XX
PF 13-MAY-1999; 99CA-02271582.
XX
PR 14-MAY-1998; 98US-00078955.
XX
PA (KLIM/) KLIMUK S K.
PA (HARA/) HARASYM T.
PA (HOPE/) HOPE M J.
PA (ANSE/) ANSELL S M.
PA (CULL/) CULLIS P R.
PA (MOKW/) MOK W W K.
PA (SCHE/) SCHERRER P.
PA (SEMP/) SEMPLE S C.
XX
PI Klimuk SK, Harasym T, Hope MJ, Ansell SM, Cullis PR, Mok WWK;
PI Scherrer P, Semple SC;
XX
DR WPI; 2000-225058/20.
XX
PT A method for delivering antisense oligonucleotides to cells using lipid

```
PT   capsules comprising steric barrier lipids.
XX
PS   Disclosure; Page 26; 99pp; English.
XX
CC   This sequence represents an antisense oligonucleotide sequence which has
CC   human Bcl-2 as its target gene. The oligonucleotide is used in a method
CC   for delivering lipid encapsulated therapeutic agents (i.e antisense
CC   oligonucleotides) to mammals. The lipid capsule comprises steric barrier
CC   lipids that prevent particle aggregation during lipid nucleic acid
CC   formation. The method may be used for the delivery of therapeutic agents
CC   to mammalian cells. It is especially suitable for delivering nucleic acid
CC   molecules, and in particular antisense molecules which may be
CC   administered to down regulate the expression of aberrant genes. The
CC   aberrant gene may be ICAM-1, c-myc, c-myb, ras, raf, erb-B-2, PKC-alpha,
CC   IGF-1R, EGFR, VEGF and/or VEG-R-1. The method may be used for the
CC   treatment of tumours, inflammatory diseases and/or infectious diseases
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 99
AAA39264/c
ID   AAA39264 standard; DNA; 18 BP.
XX
AC   AAA39264;
XX
DT   08-SEP-2000  (first entry)
XX
DE   CpG immunostimulatory oligonucleotide #2.
XX
KW   CpG; immunostimulatory; adjuvant; vaccine; metal salt; antiviral;
KW   antibacterial; antiprotozoal; antimalarial; anti-allergic; anticancer;
KW   immune response; infection; allergy; cancer; ss.
XX
OS   Unidentified.
XX
PN   WO200023105-A2.
XX
PD   27-APR-2000.
XX
PF   08-OCT-1999;   99WO-EP007764.
XX
PR   16-OCT-1998;   98GB-00022703.
PR   16-OCT-1998;   98GB-00022709.
PR   16-OCT-1998;   98GB-00022712.
XX
PA   (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS.
XX
PI   Garcon N;
XX
DR   WPI; 2000-339525/29.
XX
PT   Adjuvant composition comprising immunostimulant, useful for preparing
PT   vaccines, deposited on metal salt particle that contains no antigen,
PT   which is present on separate particles.
XX
PS   Disclosure; Page 6; 37pp; English.
XX
CC   The present invention describes an adjuvant composition (A) comprising an
CC   immunostimulant (I) absorbed on a metallic salt particle (II) that is
CC   practically free of antigen (Ag). Also described are: (1) preparation of
CC   a vaccine by mixing (A) with Ag; (2) vaccine comprising two major
CC   populations of complexes, one comprising (A) and the other Ag adsorbed on
CC   (II); and (3) kit comprising, in separate containers, monophosphoryl
CC   lipid A (MPL) adsorbed on metal salt and Ag adsorbed on metal salt. (A)
CC   has antiviral, antibacterial, antiprotozoal, antimalarial, anti-allergic
CC   and anticancer activities, and can be used to induce a specific immune
CC   response. (A) are used in preparation of vaccines for treatment or
CC   prevention of a wide range of viral, bacterial and protozoal infections,
CC   also allergy and cancers. By adsorbing (I) and Ag on separate particles,
CC   vaccines (including those containing many Ag) can be produced simply by
CC   mixing, rather than by sequential adsorption of many components on to the
CC   same particles (which is time-consuming, expensive and difficult to
CC   control). The components may be tested individually and failure of any
CC   one component does not require rejection of an entire batch of vaccine.
CC   The new vaccines are as effective as those prepared conventionally. The
CC   present sequence represents a CpG immunostimulatory oligonucleotide which
CC   is used in the exemplification of the present invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 100
AAZ47680/c
ID   AAZ47680 standard; DNA; 18 BP.
XX
AC   AAZ47680;
XX
DT   01-MAR-2000  (first entry)
XX
DE   Parasitic infection preventing exemplary oligonucleotide SEQ ID NO:89.
XX
KW   Immune system; immunostimulatory; parasitic infection; parasite;
KW   CpG oligonucleotide; antigen presenting cell; natural killer cell;
KW   granulocyte; malaria; helminth disease; tick; mite; ss.
XX
OS   Synthetic.
XX
PN   WO9956755-A1.
XX
PD   11-NOV-1999.
XX
PF   06-MAY-1999;   99WO-US009863.
XX
PR   06-MAY-1998;   98US-0084512P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (OTTA-) OTTAWA CIVIC LOEB RES INST.
PA   (USNA ) US SEC OF NAVY.
XX
PI   Gramzinski RA,  Krieg AM,  Davis HL,  Hoffman SL;
XX
DR   WPI; 2000-062123/05.
XX
PT   Treating and preventing parasitic infections using CpG oligonucleotides.
XX
PS   Disclosure; Page 21; 74pp; English.
XX
CC   The present invention describes a method for treating and preventing
CC   parasitic infection by administration of unmethylated CpG
CC   oligonucleotides. The CpG oligonucleotides are able to stimulate the
CC   innate immune system via the activation of immune cells, such as antigen
CC   presenting cells, natural killer cells and granulocytes. The CpG
CC   oligonucleotides and the method can be used to treat and prevent
CC   parasitic diseases, such as malaria, helminth diseases, tick and mites in
CC   humans, animals and poultry. The oligonucleotides may be administered in
CC   conjunction with parasiticides or other therapeutic compounds after an
CC   organism has been diagnosed to be infected with parasites. Diseases which
CC   can be treated or prevented include those caused by Plasmodium
CC   falciparum, P. ovale, P. malariae, P. vivax, P. knowlesi, Babesia
```

CC microti, B. divergens, Trypanosoma cruzi, T. gambiense, T. rhodesiense,
CC Schistosoma mansoni, Toxoplasma gondii, Trichinella spiralis, Leishmania
CC major, L. donovani, L. braziliensis, and L. tropica. The parasite is
CC especially capable of causing malaria. The present sequence represents a
CC parasitic infection preventing exemplary oligonucleotide sequence from
CC the present invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 101
AAZ47643/c
ID AAZ47643 standard; DNA; 18 BP.
XX
AC AAZ47643;
XX
DT 01-MAR-2000 (first entry)
XX
DE Parasitic infection preventing exemplary oligonucleotide SEQ ID NO:49.
XX
KW Immune system; immunostimulatory; parasitic infection; parasite;
KW CpG oligonucleotide; antigen presenting cell; natural killer cell;
KW granulocyte; malaria; helminth disease; tick; mite; ss.
XX
OS Synthetic.
XX
PN WO9956755-A1.
XX
PD 11-NOV-1999.
XX
PF 06-MAY-1999; 99WO-US009863.
XX
PR 06-MAY-1998; 98US-0084512P.
XX
PA (IOWA) UNIV IOWA RES FOUND.
PA (OTTA-) OTTAWA CIVIC LOEB RES INST.
PA (USNA) US SEC OF NAVY.
XX
PI Gramzinski RA, Krieg AM, Davis HL, Hoffman SL;
XX
DR WPI; 2000-062123/05.
XX
PT Treating and preventing parasitic infections using CpG oligonucleotides.
XX
PS Disclosure; Page 20; 74pp; English.
XX
CC The present invention describes a method for treating and preventing
CC parasitic infection by administration of unmethylated CpG
CC oligonucleotides. The CpG oligonucleotides are able to stimulate the
CC innate immune system via the activation of immune cells, such as antigen
CC presenting cells, natural killer cells and granulocytes. The CpG
CC oligonucleotides and the method can be used to treat and prevent
CC parasitic diseases, such as malaria, helminth diseases, tick and mites in
CC humans, animals and poultry. The oligonucleotides may be administered in
CC conjunction with parasiticides or other therapeutic compounds after an
CC organism has been diagnosed to be infected with parasites. Diseases which
CC can be treated or prevented include those caused by Plasmodium
CC falciparum, P. ovale, P. malariae, P. vivax, P. knowlesi, Babesia
CC microti, B. divergens, Trypanosoma cruzi, T. gambiense, T. rhodesiense,
CC Schistosoma mansoni, Toxoplasma gondii, Trichinella spiralis, Leishmania
CC major, L. donovani, L. braziliensis, and L. tropica. The parasite is
CC especially capable of causing malaria. The present sequence represents a
CC parasitic infection preventing exemplary oligonucleotide sequence from
CC the present invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 102
AAA91620/c
ID AAA91620 standard; DNA; 18 BP.
XX
AC AAA91620;
XX
DT 20-DEC-2000 (first entry)
XX
DE Human Bcl-2 antisense oligonucleotide.
XX
KW Human; Bcl-2 antisense oligonucleotide; ribonucleotide reductase;
KW R1 protein; R2 protein; tumour cell proliferation inhibition; cancer;
KW cytostatic; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200047733-A1.
XX
PD 17-AUG-2000.
XX
PF 09-FEB-2000; 2000WO-CA000120.
XX
PR 11-FEB-1999; 99US-00249730.
XX
PA (GENE-) GENESENSE TECHNOLOGIES INC.
XX
PI Wright JA, Young AH;
XX
DR WPI; 2000-558216/51.
XX
PT New antisense oligonucleotide, AS-I-618-20, is useful for inhibiting
PT tumor cell growth.
XX
PS Example 13; Page 105; 137pp; English.
XX
CC The present sequence is an antisense oligonucleotide directed against Bcl
CC -2. Antisense oligonucleotides directed against a number of tumour-
CC associated genes were administered to mice injected with human colon
CC carcinoma cells, human melanoma cells or human lung cancer cells. The
CC tumour was removed 14 days after treatment and its weight was measured.
CC This was performed as an example of a method for modulating cell
CC proliferation. Antisense oligonucleotides were also made that were
CC directed against the R1 or R2 component of mammalian ribonucleotide
CC reductase. Ribonucleotide reductase catalyses the conversion of
CC ribonucleotides to their corresponding deoxyribonucleotides and thus
CC plays an important role in DNA synthesis and cell proliferation.
CC Regulation of ribonucleotide reductase is altered in cultured malignant
CC cells and increased levels of R2 protein and R2 mRNA have been found in
CC pre-malignant and malignant tissues as compared to normal control tissue
CC samples. Antisense sequence are therefore useful for inhibiting
CC tumourigenicity of neoplastic cells and inhibiting metastasis of tumour
CC cells. They are also useful for increasing sensitivity of neoplastic
CC cells to chemotherapeutic drugs, thus allowing chemotherapeutic
CC treatments to be used in patients who have become resistant or less
CC sensitive to chemotherapy
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
```

RESULT 103
AAC60278/c
ID AAC60278 standard; DNA; 18 BP.
XX
AC AAC60278;
XX
DT 14-FEB-2001 (first entry)
XX
DE Immunostimulatory oligonucleotide #2.
XX
KW Immunostimulatory; oligonucleotide; cancer; allergy; Alzheimer's disease;
KW atherosclerosis; viral; bacterial; parasitic; infection; ss.
XX
OS Homo sapiens.
XX
PN WO200062800-A2.
XX
PD 26-OCT-2000.
XX
PF 04-APR-2000; 2000WO-EP002920.
XX
PR 19-APR-1999; 99GB-00008885.
PR 29-APR-1999; 99US-00301829.
XX
PA (SMIK) SMITHKLINE BEECHAM BIOLOGICALS.
XX
PI Friede M, Garcon N, Hermand P;
XX
DR WPI; 2000-687101/67.
XX
PT Adjuvant composition comprising saponin and immunostimulatory
PT oligonucleotide CpG, useful for producing vaccine formulations for
PT prophylaxis and treatment of cancers, allergy and Alzheimer's disease.
XX
PS Claim 5; Page 4; 52pp; English.
XX
CC The present invention relates to an adjuvant composition comprising a
CC saponin and an immunostimulatory oligonucleotide. A vaccine composition
CC containing the adjuvant is useful for inducing an immune response in an
CC individual and for preventing or treating disease. Diseases include
CC cancers; allergy; Alzheimer's disease and atherosclerosis. The vaccine is
CC also useful for prophylaxis and treatment of viral, bacterial and
CC parasitic infections. The present sequence is an oligonucleotide of the
CC invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

```
  Query Match              2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
```

RESULT 104
AAC65037/c
ID AAC65037 standard; DNA; 18 BP.
XX
AC AAC65037;
XX
DT 12-FEB-2001 (first entry)
XX
DE Bcl2 antisense sequence SEQ ID NO: 20.
XX
KW Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
KW protein kinase C; PKC; PCR primer; ss.
XX
OS Homo sapiens.
XX
PN WO200061810-A1.
XX
PD 19-OCT-2000.
XX
PF 07-APR-2000; 2000WO-US009293.
XX
PR 08-APR-1999; 99US-0128377P.
XX
PA (OASI-) OASIS BIOSCIENCES INC.
XX
PI Brown BD, Riley TA;
XX
DR WPI; 2000-679502/66.
XX
PT Antisense oligonucleotides containing degenerate and/or universal bases,
PT and modified backbone linkages is useful to target therapeutic genes,
PT preferably anti-apoptosis or chemoresistance genes.
XX
PS Example 4; Page 11; 32pp; English.
XX
CC The present invention is concerned with antisense oligonucleotides
CC containing a number of degenerate bases and with a modified backbone
CC which can be used to direct cleavage of target RNA molecules. The use of
CC degenerate bases reduces the risk of immune activation following
CC injection into animals, which causes deleterious side effects associated
CC with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC C65077 are antisense oligonucleotides and PCR primers used in assays to
CC demonstrate the effects of the sequences of the invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

```
  Query Match              2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
```

RESULT 105
AAC64137/c
ID AAC64137 standard; DNA; 18 BP.
XX
AC AAC64137;
XX
DT 19-FEB-2001 (first entry)
XX
DE Immunostimulatory CpG oligonucleotide WD0002 used in an RSV vaccine.
XX
KW Immunostimulatory oligonucleotide; CpG oligonucleotide;
KW respiratory syncytial virus; RSV; vaccine; phosphorothioate;
KW unmethylated; adjuvant; ss.
XX
OS Synthetic.
XX
PN WO200062802-A2.
XX
PD 26-OCT-2000.
XX
PF 17-APR-2000; 2000WO-EP003516.
XX
PR 20-APR-1999; 99GB-00009077.
PR 28-JUN-1999; 99GB-00015106.
XX
PA (SMIK) SMITHKLINE BEECHAM BIOLOGICALS.
XX
PI Deschamps M;
XX

DR WPI; 2000-679550/66.
XX
PT Novel vaccine formulation comprising a respiratory syncytial virus (RSV)
PT antigen and an immunostimulatory CpG oligonucleotide useful for treating
PT RSV infections mutations.
XX
PS Claim 9; Page 26; 34pp; English.
XX
CC The invention relates to a novel vaccine formulation comprising a
CC respiratory syncytial virus (RSV) antigen and an immunostimulatory CpG
CC oligonucleotide. The CpG motifs of the immunostimulatory oligonucleotide
CC are unmethylated, and the backbone of the oligonucleotide is preferably
CC all-phosphorothioate. The RSV antigen used may be F (fusion) protein, G
CC (attachment) protein, an FG fusion protein, an immunogenic derivative of
CC any of these proteins, or inactivated RSV. RSV causes lower respiratory
CC tract illness in humans, particularly in children and the elderly. The
CC RSV vaccine of the invention is used for preventing or ameliorating RSV
CC infection in a patient. The present sequence represents an
CC immunostimulatory CpG oligonucleotide which may be used in the RSV
CC vaccine of the invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 106
AAH20395/c
ID AAH20395 standard; DNA; 18 BP.
XX
AC AAH20395;
XX
DT 03-AUG-2001 (first entry)
XX
DE CpG motif containing oligonucleotide SEQ ID #6.
XX
KW Immune system stimulator; CpG motif; CpG receptor; CpG-R; antibacterial;
KW immune response; vaccine adjuvant; tumour immunotherapy; allergy;
KW anti-inflammatory; cystic fibrosis; sepsis; heart disease; chlamydia;
KW inflammatory bowel disease; arthritis; multiple sclerosis; ss.
XX
OS Unidentified.
XX
FH Key Location/Qualifiers
FT modified_base 1. .20
FT /*tag= a
FT /mod_base= OTHER
FT /note= "Phosphorothioate internucleoside linkages"
XX
PN WO200132877-A2.
XX
PD 10-MAY-2001.
XX
PF 01-NOV-2000; 2000WO-US041735.
XX
PR 02-NOV-1999; 99US-0163157P.
PR 24-NOV-1999; 99US-0167389P.
XX
PA (CHIR) CHIRON CORP.
XX
PI Mackichan ML;
XX
DR WPI; 2001-343486/36.
XX
PT Novel CpG receptor and nucleic acid molecule encoding the receptor, for
PT modulating immune response and for identifying compounds of therapeutic
PT use which bind and/or modulate the activity of the receptor.
XX
PS Example 1; Page 14; 41pp; English.
XX
CC Unmethylated CG dinucleotide sequences are commonly found in bacterial
CC DNA, and have been found to stimulate the innate immune system. Natural
CC killer and T cells are activated by exposure to oligonucleotides
CC containing CpG motifs. Oligonucleotides containing CpG motifs can be used
CC as adjuvants in vaccines. The present invention relates to a CpG
CC receptor. The CpG receptor contains a Toll homology domain (THD). The
CC Toll receptor family are associated with responses to pathogens. CpG
CC oligonucleotides may act as stimulators of various immune responses. The
CC CpG receptor or cells expressing the receptor are useful for identifying
CC a compound which binds to or modulates an activity of the CpG receptor.
CC The compounds are useful in e.g. vaccine adjuvants promoting cell-
CC mediated immune responses, antibacterials, (e.g. protection from Listeria
CC infection), tumour immunotherapy, allergy treatment, (e.g. suppressing
CC IgE in human PBMC, shifting from Th2 to Th1) and as anti-inflammatory
CC agents (e.g. for use in cystic fibrosis, sepsis, heart disease,
CC chlamydia, inflammatory bowel disease, arthritis and multiple sclerosis).
CC The present sequence represents a CpG motif containing oligonucleotide
CC used in examples demonstrating that CpG oligonucleotides can activate the
CC MAPK pathways and NF-kappaB
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 107
AAH50615/c
ID AAH50615 standard; DNA; 18 BP.
XX
AC AAH50615;
XX
DT 22-AUG-2001 (first entry)
XX
DE Natural killer cell lytic activity iducing oligonucleotide SEQ ID NO:45.
XX
KW Immunostimulatory; inducing; natural killer cell; lytic activity;
KW unmethylated CpG dinucleotide; immune response; B cell proliferation;
KW Th1; immune activation; interleukin 6; IL-6; interferon gamma; IFN-gamma;
KW cytokine; ss.
XX
OS Synthetic.
XX
PN US6239116-B1.
XX
PD 29-MAY-2001.
XX
PF 30-OCT-1997; 97US-00960774.
XX
PR 30-OCT-1996; 96US-00738652.
XX
PA (IOWA) UNIV IOWA RES FOUND.
PA (COLE-) COLEY PHARM GROUP INC.
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Krieg AM, Kline JN;
XX
DR WPI; 2001-380456/40.
XX
PT Methods for inducing Il-6, interferon-gamma or Il-12, or stimulating
PT natural killer cell lytic activity in a human, comprise administering to
PT the subject or exposing a natural killer cell to immunostimulatory
PT nucleic acids.
XX
PS Disclosure; Col 32; 74pp; English.

```
XX
CC   The present invention describes methods for inducing interleukin 6 (IL-
CC   6), interferon-gamma (IFN-gamma) or IL-12, or for stimulating natural
CC   killer cell lytic activity. The methods comprise administering to the
CC   subject or exposing a natural killer cell to an immunostimulatory nucleic
CC   acid. Also described are: (1) inducing IL-6 in a subject comprising
CC   administering to the subject to induce IL-6 in the subject the
CC   immunostimulatory nucleic acid; (2) stimulating natural killer cell lytic
CC   activity comprising exposing a natural killer cell to the
CC   immunostimulatory nucleic acid to stimulate natural killer cell lytic
CC   activity; (3) inducing interferon-gamma in a subject to treat an immune
CC   system deficiency comprising administering to the subject to induce
CC   interferon-gamma production, the immunostimulatory nucleic acid; and (4)
CC   inducing IL-12 in a subject comprising administering to the subject the
CC   immunostimulatory nucleic acid. The methods are useful for inducing IL-6,
CC   interferon-gamma or IL-12, or stimulating natural killer cell lytic
CC   activity in a subject, particularly a human. The methods are particularly
CC   useful for modulating an immune response. AAH50571 to AAH50671 represent
CC   oligonucleotide sequences used in the exemplification of the present
CC   invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 108
AAF60923/c
ID   AAF60923 standard; DNA; 18 BP.
XX
AC   AAF60923;
XX
DT   15-MAY-2001  (first entry)
XX
DE   Anti-bcl oligonucleotide SEQ ID 32.
XX
KW   Transport; membrane; cytostatic; virucide; vasotropic; dermatological;
KW   antipsoriatic; antiasthmatic; gene therapy; tumor cell; antisense;
KW   tumor therapy; drug; ss.
XX
OS   Unidentified.
XX
PN   DE19935302-A1.
XX
PD   08-FEB-2001.
XX
PF   28-JUL-1999;   99DE-01035302.
XX
PR   28-JUL-1999;   99DE-01035302.
XX
PA   (AVET ) AVENTIS PHARMA DEUT GMBH.
XX
PI   Uhlmann E,  Greiner B,  Unger E,  Gothe G,  Schwerdel M;
XX
DR   WPI; 2001-203679/21.
XX
PT   New substituted aryl conjugates of parent molecules, especially
PT   oligonucleotides, having improved transmembrane and intracellular
PT   transport properties, useful as medicaments or diagnostic agents.
XX
PS   Disclosure; Page 7; 28pp; German.
XX
CC   This invention describes a novel conjugate (I) which consists of (A) a
CC   molecule to be transported and (B) at least one aryl residue of formula -
CC   Ar-(X-C(Y)-R_1)_n (II). Ar = group containing at least one aromatic ring;
CC   X = O or N (sic); Y = O, S or NH-R_2 (sic); R_1 = optionally substituted
CC   1-23C alkyl (optionally containing double and/or triple bonds); R_2 =
CC   optionally substituted 1-18C alkyl (optionally containing double and/or
CC   triple bonds); n = integer of 1 or more. (A) is bonded to (B) directly or
CC   via a chemical group, provided that the chemical group is other than CH_2
CC   -S if the bond is via a phosphodiester linkage of (A). The invention also
CC   describes (i) the preparation of a conjugate (I') of (A') a molecule to
CC   be transported and (B') at least one aryl residue (not restricted to
CC   (II)), by preparing (A') containing a reactive function at the position
CC   at which (B') is to be bonded, preparing (B') and reacting (A') and (B');
CC   and (ii) the use of aryl groups (II) (optionally bonded via a chemical
CC   group) for transporting (A) across biological membranes. The products of
CC   the invention have cytostatic, virucide, vasotropic, dermatological,
CC   antipsoriatic and antiasthmatic activity and can be used for gene
CC   therapy. Conjugation of (A) with (B) is useful for transporting (A)
CC   across biological membranes or into eukaryotic or prokaryotic cells
CC   (specifically bacterial, yeast or mammalian cells, including human cells,
CC   particularly tumor cells). Medicaments, diagnostic agents and test kits
CC   containing (I) are also claimed. Typically (I) are antisense
CC   oligonucleotide derivatives for tumor therapy; oligonucleotide drugs for
CC   treating viral infections or diseases associated with integrins or cell-
CC   cell interactions (e.g. restenosis, vitiligo, psoriasis or asthma); or
CC   labeled oligonucleotides for in vivo diagnostic use, e.g. by in situ
CC   hybridization. Conjugation with (B) markedly improves the cellular uptake
CC   of (A), e.g. in tumor cells. (B) include fluorescein derivative residues,
CC   in which case the conjugates (I) are fluorescently labeled, allowing
CC   microscopic monitoring of cellular uptake etc. The cellular uptake of (I)
CC   is superior to that obtained using other conjugated groups related to
CC   (II); e.g. oligonucleotides conjugated with fluorescein diacetate (within
CC   the scope of (B)) have superior uptake to corresponding fluorescein
CC   conjugates
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 109
AAH19305/c
ID   AAH19305 standard; DNA; 18 BP.
XX
AC   AAH19305;
XX
DT   13-JUL-2001  (first entry)
XX
DE   CpG oligonucleotide #6.
XX
KW   Immunostimulant; antiallergic; cytostatic; antiasthmatic; vaccine;
KW   gene therapy; CpG; immune system deficiency; tumour; cancer; infection;
KW   leukaemia; ss.
XX
OS   Synthetic.
XX
PN   US6207646-B1.
XX
PD   27-MAR-2001.
XX
PF   30-OCT-1996;   96US-00738652.
XX
PR   15-JUL-1994;   94US-00276358.
PR   07-FEB-1995;   95US-00386063.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GROUP INC.
PA   (USSH ) US DEPT HEALTH & HUMAN SERVICES.
XX
PI   Krieg AM,  Kline J,  Klinman D,  Steinberg AD;
XX
DR   WPI; 2001-280761/29.
```

XX
PT Compositions comprising immunostimulatory molecules which comprise
PT unmethylated CpG dinucleotides useful for ameliorating immune system
PT deficiency, treating leukemia and desensitizing subject against allergic
PT response.
XX
PS Disclosure; Col 29-30; 55pp; English.
XX
CC The present invention relates to a composition comprising an isolated
CC immunostimulatory nucleic acid which comprises unmethylated cytosine-
CC guanine (CpG) dinucleotides and an antigen in a carrier. The present
CC sequence is an oligonucleotide, which was used in the present invention.
CC The immunostimulatory nucleic acids are useful for ameliorating an immune
CC system deficiency (the presence of tumour, cancer or infectious agent) in
CC a subject. The immunostimulatory nucleic acids are also useful for
CC desensitising a subject against the occurrence of an allergic reaction in
CC response to contact with a particular allergen. The immunostimulatory
CC nucleic acids are also useful for vaccination and for treating leukaemia
CC in a subject on administration prior to or in conjunction with a
CC chemotherapy, so that the subject's leukaemia cells are more sensitive to
CC chemotherapy. The compositions are useful for inducing an antigen
CC specific immune response in the subject. The compositions can be also
CC used to treat or prevent the symptoms of asthma
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 110
AAF98832/c
ID AAF98832 standard; DNA; 18 BP.
XX
AC AAF98832;
XX
DT 11-JUN-2001 (first entry)
XX
DE CpG immunostimulatory nucleic acid SEQ ID NO: 110.
XX
KW Immunostimulatory nucleic acid; ISNA; human; interferon alpha; IFN-alpha;
KW viral infection; phosphorothioate backbone; palindrome; cancer; ds.
XX
OS Synthetic.
XX
PN WO200122990-A2.
XX
PD 05-APR-2001.
XX
PF 27-SEP-2000; 2000WO-US026527.
XX
PR 27-SEP-1999; 99US-0156147P.
XX
PA (COLE-) COLEY PHARM GROUP INC.
PA (IOWA) UNIV IOWA RES FOUND.
XX
PI Hartmann G, Bratzler RL, Krieg A;
XX
DR WPI; 2001-290487/30.
XX
PT Improving the efficacy of treatments involving the administration of
PT interferon-alpha by co-administering an isolated immunostimulatory
PT nucleic acid.
XX
PS Disclosure; Page 22; 168pp; English.
XX
CC The present invention describes an improvement to a method requiring the
CC administration of interferon alpha (IFN-alpha), involving administering
CC an immunostimulatory nucleic acid (ISNA). The sequences of a number of
CC such nucleic acids are also provided. These may comprise oligonucleotides
CC with phosphorothioate backbones, palindromes, or G-rich sequences. The
CC sequences of the invention are useful in the treatment of proliferative
CC diseases, such as cancers, and viral infections. The present sequence is
CC an example of an immunostimulatory oligonucleotide
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 111
AAF59502/c
ID AAF59502 standard; DNA; 18 BP.
XX
AC AAF59502;
XX
DT 24-APR-2001 (first entry)
XX
DE Immunostimulatory CpG oligonucleotide WD1002 for use in an HIV vaccine.
XX
KW Immunostimulatory CpG oligonucleotide; adjuvant; HIV antigen;
KW HIV infection; vaccine; prophylaxis; treatment; ss.
XX
OS Synthetic.
XX
PN WO200100232-A2.
XX
PD 04-JAN-2001.
XX
PF 28-JUN-2000; 2000WO-EP005998.
XX
PR 29-JUN-1999; 99GB-00015205.
PR 31-JAN-2000; 2000GB-00002200.
XX
PA (SMIK) SMITHKLINE BEECHAM BIOLOGICALS.
XX
PI Garcon N, Voss G;
XX
DR WPI; 2001-122974/13.
XX
PT New vaccine formulation comprising human immunodeficiency virus (HIV)
PT antigen and immunostimulatory CpG oligonucleotide, useful for preventing
PT and treating HIV infections in a patient.
XX
PS Claim 10; Page 17; 23pp; English.
XX
CC The invention relates to an HIV vaccine comprising an HIV antigen and an
CC immunostimulatory oligonucleotide (AAF59501-AAF59508). With the exception
CC of oligonucleotide WD1005 (AAF59505), the immunostimulatory
CC oligonucleotides contain at least one unmethylated CpG motif. In
CC preferred embodiments the internucleotide linkage is phosphorodithioate,
CC although phosphodiester and other internucleotide bonds, or mixtures of
CC linkages are within the scope of the invention. The HIV antigen may be
CC selected from gp160, gp120, Nef, Tat, and Nef or Tat derivatives or
CC fusion proteins. The vaccine is used for the prophylaxis or treatment of
CC HIV infection in a patient. The present sequence represents a
CC specifically claimed immunostimulatory CpG oligonucleotide for use in the
CC vaccine of the invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 112
AAF98930/c
ID   AAF98930 standard; DNA; 18 BP.
XX
AC   AAF98930;
XX
DT   12-JUN-2001  (first entry)
XX
DE   Immunostimulatory nucleic acid #46.
XX
KW   Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW   immunostimulatory; tumour; viral infection; bacterial infection;
KW   fungal infection; parasitic infection; cancer; asthma;
KW   infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS   Synthetic.
XX
PN   WO200122972-A2.
XX
PD   05-APR-2001.
XX
PF   25-SEP-2000; 2000WO-US026383.
XX
PR   25-SEP-1999;   99US-0156113P.
PR   27-SEP-1999;   99US-0156135P.
PR   23-AUG-2000; 2000US-0227436P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Krieg AM,  Schetter C,  Vollmer J;
XX
DR   WPI; 2001-273485/28.
XX
PT   Vaccinating against tumors, infectious diseases, allergies and asthma
PT   using immunostimulatory Py-rich and TG nucleic acids.
XX
PS   Disclosure; Page 39; 338pp; English.
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 113
AAF98929/c
ID   AAF98929 standard; DNA; 18 BP.
XX
AC   AAF98929;
XX
DT   12-JUN-2001  (first entry)
XX
DE   Immunostimulatory nucleic acid #45.
XX
KW   Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW   immunostimulatory; tumour; viral infection; bacterial infection;
KW   fungal infection; parasitic infection; cancer; asthma;
KW   infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS   Synthetic.
XX
PN   WO200122972-A2.
XX
PD   05-APR-2001.
XX
PF   25-SEP-2000; 2000WO-US026383.
XX
PR   25-SEP-1999;   99US-0156113P.
PR   27-SEP-1999;   99US-0156135P.
PR   23-AUG-2000; 2000US-0227436P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Krieg AM,  Schetter C,  Vollmer J;
XX
DR   WPI; 2001-273485/28.
XX
PT   Vaccinating against tumors, infectious diseases, allergies and asthma
PT   using immunostimulatory Py-rich and TG nucleic acids.
XX
PS   Disclosure; Page 39; 338pp; English.
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 114
AAF98966/c
ID   AAF98966 standard; DNA; 18 BP.
XX
AC   AAF98966;
XX
DT   12-JUN-2001  (first entry)
XX
DE   Immunostimulatory nucleic acid #82.
XX
KW   Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
```

```
KW   immunostimulatory; tumour; viral infection; bacterial infection;
KW   fungal infection; parasitic infection; cancer; asthma;
KW   infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS   Synthetic.
XX
PN   WO200122972-A2.
XX
PD   05-APR-2001.
XX
PF   25-SEP-2000; 2000WO-US026383.
XX
PR   25-SEP-1999;   99US-0156113P.
PR   27-SEP-1999;   99US-0156135P.
PR   23-AUG-2000; 2000US-0227436P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Krieg AM,  Schetter C,  Vollmer J;
XX
DR   WPI; 2001-273485/28.
XX
PT   Vaccinating against tumors, infectious diseases, allergies and asthma
PT   using immunostimulatory Py-rich and TG nucleic acids.
XX
PS   Disclosure; Page 40; 338pp; English.
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 115
AAF98885/c
ID   AAF98885 standard; DNA; 18 BP.
XX
AC   AAF98885;
XX
DT   12-JUN-2001  (first entry)
XX
DE   Immunostimulatory nucleic acid #1.
XX
KW   Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW   immunostimulatory; tumour; viral infection; bacterial infection;
KW   fungal infection; parasitic infection; cancer; asthma;
KW   infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS   Synthetic.
XX
PN   WO200122972-A2.
XX
PD   05-APR-2001.
XX
PF   25-SEP-2000; 2000WO-US026383.
XX
PR   25-SEP-1999;   99US-0156113P.
PR   27-SEP-1999;   99US-0156135P.
PR   23-AUG-2000; 2000US-0227436P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Krieg AM,  Schetter C,  Vollmer J;
XX
DR   WPI; 2001-273485/28.
XX
PT   Vaccinating against tumors, infectious diseases, allergies and asthma
PT   using immunostimulatory Py-rich and TG nucleic acids.
XX
PS   Example 12; Page 38; 338pp; English.
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 116
AAA92362/c
ID   AAA92362 standard; DNA; 18 BP.
XX
AC   AAA92362;
XX
DT   12-JAN-2001  (first entry)
XX
DE   CG motif and CFA containing oligonucleotide SEQ ID NO:4.
XX
KW   CG motif; complete Freund's adjuvant; phosphorothioate; immunogenic;
KW   Neisseria antigen; Neisseria meningitidis; Neisseria gonorrhoeae;
KW   bactericidal; antibacterial; vaccine; immunostimulatory; infection;
KW   immune response; ss.
XX
OS   Neisseria sp.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .18
FT                   /*tag=  a
FT                   /note= "preferably contains at least one phosphorothioate
FT                   bond"
XX
PN   WO200050075-A2.
XX
PD   31-AUG-2000.
XX
```

PF 09-FEB-2000; 2000WO-IB000176.
XX
PR 26-FEB-1999; 99US-0121792P.
XX
PA (CHIR-) CHIRON SPA.
XX
PI Grandi G, Rappuoli R, Giuliani MM, Pizza M;
XX
DR WPI; 2001-015529/02.
XX
PT Immunogenic composition useful for stimulating an immune response in a
PT mammal against Neisseria infection, comprises Neisseria antigen and an
PT adjuvant composition comprising an oligonucleotide with a CG motif.
XX
PS Claim 19; Page 9; 39pp; English.
XX
CC The present invention describes an immunogenic composition (I) comprising
CC a Neisseria antigen and an adjuvant composition comprising an
CC oligonucleotide comprising at least 1 CG motif. Also described is an
CC adjuvant composition (II) comprising an oligonucleotide which comprises
CC at least 1 CG motif and a complete Freund's adjuvant (CFA), where the
CC oligonucleotide preferably comprises at least one phosphorothioate bond.
CC AAA92359 to AAA92385 represent specifically claimed oligonucleotides of
CC the present invention. (I) is useful for stimulating an immune response
CC in a mammal, preferably a human, against Neisseria infection, preferably
CC Neisseria meningitidis infection and in the manufacture of a medicament
CC for inducing a protective immune response in a mammal
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 117
AAS08980/c
ID AAS08980 standard; DNA; 18 BP.
XX
AC AAS08980;
XX
DT 24-OCT-2001 (first entry)
XX
DE CpG-containing oligonucleotide sequence 1758.
XX
KW CpG motif; saponin; innate immune response; natural killer cell response;
KW viral disease; hepatitis; feline leukaemia virus; influenza; adenovirus;
KW herpes simplex virus; HSV; papilloma virus; human immunodeficiency virus;
KW HIV; bacterial disease; mycoplasma; legionella; anthrax; diphtheria; ds;
KW Lyme disease; tuberculosis; protozoal disease; leishmania; trypanosoma;
KW parasitic disease; chlamydia; rickettsia; fibrosarcoma; adenocarcinoma;
KW retinoblastoma; melanoma; leukaemia; Ewing's tumour; Wilm's tumour;
KW cancer.
XX
OS Homo sapiens.
XX
PN WO200151083-A2.
XX
PD 19-JUL-2001.
XX
PF 12-JAN-2001; 2001WO-US001046.
XX
PR 13-JAN-2000; 2000US-0175840P.
PR 01-MAY-2000; 2000US-0200853P.
PR 06-AUG-2000; 2000US-00369941.
XX
PA (AQUI-) AQUILA BIOPHARMACEUTICALS INC.
XX
PI Kensil CR;
XX
DR WPI; 2001-451816/48.
XX
PT Composition for enhancing innate immune response and treating infections
PT and cancer comprises a saponin and an oligonucleotide comprising at least
PT one unmethylated CpG dinucleotide.
XX
PS Disclosure; Page 5; 49pp; English.
XX
CC The sequence represents a CpG motif. Compositions comprising a saponin
CC and a CpG motif containing at least one unmethylated CpG (cytosine-
CC guanine) dinucleotide can be administered to humans and other mammals to
CC stimulate an innate immune response and enhance a natural killer cell
CC response. They are therefore useful for treating and preventing viral
CC diseases such as those caused by hepatitis, feline leukaemia virus,
CC influenza, adenovirus, herpes simplex virus (HSV), papilloma virus and
CC human immunodeficiency virus (HIV); bacterial diseases such as those
CC caused by mycoplasma, legionella, anthrax, diphtheria, Lyme disease and
CC tuberculosis; protozoal diseases such as those caused by leishmania and
CC trypanosoma; parasitic diseases such as those caused by chlamydia and
CC rickettsia; and cancers such as fibrosarcoma, adenocarcinoma,
CC retinoblastoma, melanoma, leukaemia, Ewing's tumour and Wilm's tumour
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 118
AAF27748/c
ID AAF27748 standard; DNA; 18 BP.
XX
AC AAF27748;
XX
DT 03-APR-2001 (first entry)
XX
DE P. falciparum vaccine CpG oligonucleotide WD1002.
XX
KW Plasmodium falciparum; malaria; CpG oligonucleotide; vaccine; sporozoite;
KW ds.
XX
OS Unidentified.
XX
PN WO200100231-A2.
XX
PD 04-JAN-2001.
XX
PF 23-JUN-2000; 2000WO-EP005841.
XX
PR 29-JUN-1999; 99GB-00015204.
XX
PA (SMIK) SMITHKLINE BEECHAM BIOLOGICALS.
XX
PI Cohen J, Garcon N, Voss G;
XX
DR WPI; 2001-112392/12.
XX
PT New vaccine formulation, useful for preventing and treating plasmodium
PT infection in a patient, comprises malaria antigen and immunostimulatory
PT CpG oligonucleotide.
XX
PS Claim 8; Page 16; 22pp; English.
XX
CC The present invention describes a vaccine comprising a malaria antigen
CC and an immunostimulatory CpG oligonucleotide. This is useful in the
CC prevention and treatment of malaria caused by Plasmodium falciparum
CC infection

```
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 119
ABQ88341/c
ID   ABQ88341 standard; DNA; 18 BP.
XX
AC   ABQ88341;
XX
DT   27-JUN-2003  (first entry)
XX
DE   Immunostimulatory oligonucleotide #1.
XX
KW   Immunostimulatory; antiviral; antibacterial; antiparasitic; cytostatic;
KW   anitallergic; antiasthmatic; respiratory; cancer; autoimmune disorder;
KW   autoimmune asthma; airway inflammation; allergy; oligonucleotide; ss.
XX
OS   Synthetic.
XX
PN   WO200226757-A2.
XX
PD   04-APR-2002.
XX
PF   26-SEP-2001; 2001WO-US030137.
XX
PR   26-SEP-2000; 2000US-0235452P.
PR   26-SEP-2000; 2000US-0235453P.
PR   15-NOV-2000; 2000US-00712898.
XX
PA   (HYBR-) HYBRIDON INC.
XX
PI   Kandimalla ER,  Zhao Q,  Yu D,  Agrawal S;
XX
DR   WPI; 2002-527359/56.
XX
PT   Method for modulating the immunostimulatory effect of an
PT   immunostimulatory oligonucleotide compound, and new immunostimulatory
PT   oligonucleotide compounds.
XX
PS   Disclosure; Fig 21A; 94pp; English.
XX
CC   The invention relates to positional chemical modifications introduced in
CC   immunostimulatory oligonucleotide compounds that affect their
CC   immunostimulatory capabilities. The activity of oligonucleotides of the
CC   invention may be described as, immunostimulatory, antiviral,
CC   antibacterial, antiparasitic, cytostatic, anitallergic, antiasthmatic,
CC   and respiratory. Oligonucleotides of the invention may be used for
CC   treating a disease caused by a pathogen, e.g. a virus, parasite or
CC   bacterium, cancer, autoimmune disorders (e.g. autoimmune asthma), airway
CC   inflammation or allergy. The oligonucleotide may be administered in
CC   combination with an antibiotic, antigen, allergen, vaccine, antibody,
CC   cytotoxic agent, antisense oligonucleotide, gene therapy vector, DNA
CC   vaccine or adjuvant, particularly with a chemotherapeutic compound in the
CC   treatment of cancer. The sequences given in records ABQ88243-ABQ88353
CC   represent immunostimulatory peptides of the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 120
ABK90280/c
ID   ABK90280 standard; DNA; 18 BP.
XX
AC   ABK90280;
XX
DT   21-OCT-2002  (first entry)
XX
DE   Bcl-2-targeting antisense oligonucleotide #17.
XX
KW   Antisense; ss; probe; Bcl-2; cell proliferative disorder; cancer; CRE;
KW   cAMP response element; bacterial infection; viral infection;
KW   inflammation; anaphylaxis; allergy; arthritis; asthma; cytostatic;
KW   autoimmune disorder; parasitic infection; virucide; hyperplasia;
KW   tumourigenesis; hepatitis B infection; human.
XX
OS   Homo sapiens.
XX
PN   WO200257480-A2.
XX
PD   25-JUL-2002.
XX
PF   22-JAN-2002; 2002WO-US001967.
XX
PR   22-JAN-2001; 2001US-0263244P.
XX
PA   (GENT-) GENTA INC.
XX
PI   Klem RE;
XX
DR   WPI; 2002-590754/63.
XX
PT   Hybrid oligomer comprises a cyclic AMP response element sequence and a
PT   sequence that hybridizes to the bcl-2 pre-mRNA or mRNA useful for
PT   preventing or treating cell-proliferative disorders e.g., cancer.
XX
PS   Disclosure; Page 13; 78pp; English.
XX
CC   The invention relates to a hybrid oligomer comprising a cyclic AMP
CC   response element (CRE) sequence and a sequence that hybridises to the bcl
CC   -2 pre-mRNA or mRNA. Also included are: (1) inhibiting the growth of
CC   cancer cells in vitro, which comprises contacting the cancer cells with a
CC   hybrid oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer;
CC   (2) treating or preventing cancer in a human, which comprises
CC   administering a hybrid oligomer or a bcl-2 antisense oligomer and a CRE
CC   decoy oligomer; and (3) a pharmaceutical composition comprising a hybrid
CC   oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer and a
CC   carrier. The pharmaceutical composition of the invention is useful for
CC   preventing or treating cell-proliferative disorders e.g., cancer,
CC   hyperplasia or tumourigenesis and also bacterial infection, viral
CC   infection, inflammation, anaphylaxis, allergy, arthritis, asthma,
CC   autoimmune disorders and parasitic infection. The CRE decoy oligomer and
CC   bcl-2 antisense oligomer are also useful for preventing or treating
CC   hepatitis B virus infection. The hybrid oligomers can also be used for
CC   screening candidate transcription factors or other molecules e.g., gene
CC   regulatory proteins or for diagnostic assays. The present sequence is a
CC   Bcl-2 antisense oligonucleotide
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 121
```

```
ABK90285/c
ID   ABK90285 standard; DNA; 18 BP.
XX
AC   ABK90285;
XX
DT   21-OCT-2002  (first entry)
XX
DE   Bcl-2-targeting antisense oligonucleotide #18.
XX
KW   Antisense; ss; probe; Bcl-2; cell proliferative disorder; cancer; CRE;
KW   cAMP response element; bacterial infection; viral infection;
KW   inflammation; anaphylaxis; allergy; arthritis; asthma; cytostatic;
KW   autoimmune disorder; parasitic infection; virucide; hyperplasia;
KW   tumourigenesis; hepatitis B infection; human.
XX
OS   Homo sapiens.
XX
PN   WO200257480-A2.
XX
PD   25-JUL-2002.
XX
PF   22-JAN-2002; 2002WO-US001967.
XX
PR   22-JAN-2001; 2001US-0263244P.
XX
PA   (GENT-) GENTA INC.
XX
PI   Klem RE;
XX
DR   WPI; 2002-590754/63.
XX
PT   Hybrid oligomer comprises a cyclic AMP response element sequence and a
PT   sequence that hybridizes to the bcl-2 pre-mRNA or mRNA useful for
PT   preventing or treating cell-proliferative disorders e.g., cancer.
XX
PS   Disclosure; Page 13; 78pp; English.
XX
CC   The invention relates to a hybrid oligomer comprising a cyclic AMP
CC   response element (CRE) sequence and a sequence that hybridises to the bcl
CC   -2 pre-mRNA or mRNA. Also included are: (1) inhibiting the growth of
CC   cancer cells in vitro, which comprises contacting the cancer cells with a
CC   hybrid oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer;
CC   (2) treating or preventing cancer in a human, which comprises
CC   administering a hybrid oligomer or a bcl-2 antisense oligomer and a CRE
CC   decoy oligomer; and (3) a pharmaceutical composition comprising a hybrid
CC   oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer and a
CC   carrier. The pharmaceutical composition of the invention is useful for
CC   preventing or treating cell-proliferative disorders e.g., cancer,
CC   hyperplasia or tumourigenesis and also bacterial infection, viral
CC   infection, inflammation, anaphylaxis, allergy, arthritis, asthma,
CC   autoimmune disorders and parasitic infection. The CRE decoy oligomer and
CC   bcl-2 antisense oligomer are also useful for preventing or treating
CC   hepatitis B virus infection. The hybrid oligomers can also be used for
CC   screening candidate transcription factors or other molecules e.g., gene
CC   regulatory proteins or for diagnostic assays. The present sequence is a
CC   Bcl-2 antisense oligonucleotide
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 122
ABL01615/c
ID   ABL01615 standard; DNA; 18 BP.
XX
AC   ABL01615;
XX
DT   15-MAR-2002  (first entry)
XX
DE   bcl-2 targeted antisense peptide nucleic acid SEQ ID NO: 21.
XX
KW   Peptide nucleic acid; PNA; cytostatic; virucide; dermatological;
KW   antiasthmatic; overexpression; viral infection; vitiligo; antisense;
KW   pigmentation disorder; asthma; polyamide backbone; ss.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .18
FT                    /*tag=  a
FT                    /note= "This sequence is a peptide nucleic acid, i.e. it
FT                    contains a polyamide backbone instead of a deoxyribose
FT                    backbone"
FT   modified_base    1
FT                    /*tag=  b
FT                    /mod_base= OTHER
FT                    /note= "linked to one of the peptides shown in ABB04517
FT                    and ABB04518 to form a PNA-peptide conjugate"
XX
PN   WO200179216-A2.
XX
PD   25-OCT-2001.
XX
PF   07-APR-2001; 2001WO-EP004030.
XX
PR   18-APR-2000; 2000DE-01019135.
XX
PA   (AVET ) AVENTIS PHARMA DEUT GMBH.
XX
PI   Uhlmann E,  Breipohl G,  Will DW;
XX
DR   WPI; 2002-075055/10.
XX
PT   New peptide nucleic acid derivatives, useful e.g. for tumor treatment and
PT   diagnosis, contain terminal, deprotonizable phosphoryl groups for e.g.
PT   improved solubility.
XX
PS   Disclosure; Page 20; 93pp; German.
XX
CC   The present invention relates to peptide nucleic acid (PNA) derivatives
CC   having at the C-, and optionally N-, terminus one or more phosphoryl
CC   groups, at least one of which contains one or more deprotonisable groups,
CC   preferably hydroxy or mercapto. These PNAs are useful in the treatment of
CC   tumours or any disease associated with (over)expression of particular
CC   genes, including viral infections, vitiligo or other pigmentation
CC   disorders, and asthma. The present sequence is a peptide nucleic acid
CC   described in the exemplification of the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 123
AAL44699/c
ID   AAL44699 standard; DNA; 18 BP.
XX
AC   AAL44699;
XX
DT   03-MAY-2002  (first entry)
XX
DE   Human bcl-2 antisense oligonucleotide PT-G3139.
XX
```

```
KW   Human; visual-servoing optical microscopy; cell type; cell analysis;
KW   chemotherapy testing; bcl-2; phosphorothioate backbone; antisense; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .18
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "phosphorothioate backbone"
XX
PN   WO200194528-A2.
XX
PD   13-DEC-2001.
XX
PF   07-JUN-2001; 2001WO-US018382.
XX
PR   08-JUN-2000; 2000US-0210543P.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Callahan DE,  Parvin B;
XX
DR   WPI; 2002-205819/26.
XX
PT   Coupling visual servoing microscopy technique with living cell analysis
PT   involves analyzing image data received from detection device monitoring
PT   cells, and automatically actuating stimulating devices to stimulate
PT   cells.
XX
PS   Example 7; Page 83; 111pp; English.
XX
CC   The present invention relates to a method of coupling visual servoing
CC   microscopy with living cell analysis, where cellular image data received
CC   from a detection device that monitors cells or subcellular components of
CC   the cells, is analysed, and in response to the analysed cellular image
CC   data several stimulating devices adapted to stimulate the cells or
CC   subcellular components, is automatically actuated. The method is useful
CC   for carrying out cell-type specific fluorescence assays that are useful
CC   for any types of cells, and allows detection and discrimination between
CC   normal, premalignant, malignant and/or multidrug resistant cancer cells
CC   obtained from tissue, for establishing a chemotherapeutic regimen that is
CC   tailored to an individual patient and/or individual tumour and for
CC   screening large numbers of potential drug, insecticide, herbicide and
CC   other compounds for use in medicine, agriculture and biotechnology. The
CC   present sequence is an antisense sequence aimed at the human bcl-2 coding
CC   sequence which was used in the exemplification of the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 124
ABS77607/c
ID   ABS77607 standard; DNA; 18 BP.
XX
AC   ABS77607;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Angiogenesis inhibitory oligonucleotide #91.
XX
KW   Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW   tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW   diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW   corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW   rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW   plaque neovascularisation; telangiectasia; haemophiliac joint;
KW   angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW   scleroderma; hypertrophic scar.
XX
OS   Synthetic.
XX
PN   WO200253141-A2.
XX
PD   11-JUL-2002.
XX
PF   14-DEC-2001; 2001WO-US048458.
XX
PR   14-DEC-2000; 2000US-0255534P.
XX
PA   (COLE-) COLEY PHARM GROUP INC.
XX
PI   Bratzler RL;
XX
DR   WPI; 2002-566690/60.
XX
PT   Inhibiting angiogenesis in a subject, involves administering at least one
PT   antiangiogenic nucleic acid molecule to the subject.
XX
PS   Claim 2; Page 21; 276pp; English.
XX
CC   The invention relates to inhibiting angiogenesis in a subject, comprising
CC   administering at least one antiangiogenic nucleic acid molecule. Also
CC   included is a kit comprising a first container housing the antiangiogenic
CC   nucleic acids, and instructions for administering them to a subject
CC   having a condition characterised by unwanted angiogenesis. The method is
CC   useful for inhibiting angiogenesis associated with solid tumour growth,
CC   tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC   diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC   corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC   rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC   neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC   wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC   hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC   acid of the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 125
ABS77570/c
ID   ABS77570 standard; DNA; 18 BP.
XX
AC   ABS77570;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Angiogenesis inhibitory oligonucleotide #54.
XX
KW   Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW   tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW   diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW   corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW   rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW   plaque neovascularisation; telangiectasia; haemophiliac joint;
KW   angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW   scleroderma; hypertrophic scar.
XX
OS   Synthetic.
XX
```

PN WO200253141-A2.
XX
PD 11-JUL-2002.
XX
PF 14-DEC-2001; 2001WO-US048458.
XX
PR 14-DEC-2000; 2000US-0255534P.
XX
PA (COLE-) COLEY PHARM GROUP INC.
XX
PI Bratzler RL;
XX
DR WPI; 2002-566690/60.
XX
PT Inhibiting angiogenesis in a subject, involves administering at least one
PT antiangiogenic nucleic acid molecule to the subject.
XX
PS Claim 2; Page 20; 276pp; English.
XX
CC The invention relates to inhibiting angiogenesis in a subject, comprising
CC administering at least one antiangiogenic nucleic acid molecule. Also
CC included is a kit comprising a first container housing the antiangiogenic
CC nucleic acids, and instructions for administering them to a subject
CC having a condition characterised by unwanted angiogenesis. The method is
CC useful for inhibiting angiogenesis associated with solid tumour growth,
CC tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC acid of the invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 126
ABS77571/c
ID ABS77571 standard; DNA; 18 BP.
XX
AC ABS77571;
XX
DT 13-DEC-2002 (first entry)
XX
DE Angiogenesis inhibitory oligonucleotide #55.
XX
KW Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW plaque neovascularisation; telangiectasia; haemophiliac joint;
KW angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW scleroderma; hypertrophic scar.
XX
OS Synthetic.
XX
PN WO200253141-A2.
XX
PD 11-JUL-2002.
XX
PF 14-DEC-2001; 2001WO-US048458.
XX
PR 14-DEC-2000; 2000US-0255534P.
XX
PA (COLE-) COLEY PHARM GROUP INC.
XX
PI Bratzler RL;
XX
DR WPI; 2002-566690/60.
XX
PT Inhibiting angiogenesis in a subject, involves administering at least one
PT antiangiogenic nucleic acid molecule to the subject.
XX
PS Claim 2; Page 20; 276pp; English.
XX
CC The invention relates to inhibiting angiogenesis in a subject, comprising
CC administering at least one antiangiogenic nucleic acid molecule. Also
CC included is a kit comprising a first container housing the antiangiogenic
CC nucleic acids, and instructions for administering them to a subject
CC having a condition characterised by unwanted angiogenesis. The method is
CC useful for inhibiting angiogenesis associated with solid tumour growth,
CC tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC acid of the invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 127
ABS77517/c
ID ABS77517 standard; DNA; 18 BP.
XX
AC ABS77517;
XX
DT 13-DEC-2002 (first entry)
XX
DE Angiogenesis inhibitory oligonucleotide #1.
XX
KW Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW plaque neovascularisation; telangiectasia; haemophiliac joint;
KW angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW scleroderma; hypertrophic scar.
XX
OS Synthetic.
XX
PN WO200253141-A2.
XX
PD 11-JUL-2002.
XX
PF 14-DEC-2001; 2001WO-US048458.
XX
PR 14-DEC-2000; 2000US-0255534P.
XX
PA (COLE-) COLEY PHARM GROUP INC.
XX
PI Bratzler RL;
XX
DR WPI; 2002-566690/60.
XX

PT Inhibiting angiogenesis in a subject, involves administering at least one
PT antiangiogenic nucleic acid molecule to the subject.
XX
PS Claim 2; Page 19; 276pp; English.
XX
CC The invention relates to inhibiting angiogenesis in a subject, comprising
CC administering at least one antiangiogenic nucleic acid molecule. Also
CC included is a kit comprising a first container housing the antiangiogenic
CC nucleic acids, and instructions for administering them to a subject
CC having a condition characterised by unwanted angiogenesis. The method is
CC useful for inhibiting angiogenesis associated with solid tumour growth,
CC tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC acid of the invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 128
ABL39323/c
ID ABL39323 standard; DNA; 18 BP.
XX
AC ABL39323;
XX
DT 16-APR-2002 (first entry)
XX
DE Immunostimulatory nucleic acid SEQ ID NO: 755.
XX
KW Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
KW angiogenesis; metastasis; cytostatic; phosphorothioate backbone; ss.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT modified_base 1. .18
FT /*tag= a
FT /mod_base= OTHER
FT /note= "phosphorothioate backbone"
XX
PN WO200197843-A2.
XX
PD 27-DEC-2001.
XX
PF 22-JUN-2001; 2001WO-US020154.
XX
PR 22-JUN-2000; 2000US-0213346P.
XX
PA (IOWA) UNIV IOWA RES FOUND.
XX
PI Weiner G, Hartmann G;
XX
DR WPI; 2002-154611/20.
XX
PT Treating or preventing cancer, such as basal cell carcinoma, comprises
PT administering immunostimulatory nucleic acids that induce expression of
PT cell surface antigens and antibodies to a subject having or at risk of
PT developing cancer.
XX
PS Disclosure; Page 288; 312pp; English.
XX
CC The present invention relates to methods for treating or preventing
CC cancer, involving administering to a subject having or at risk of
CC developing cancer immunostimulatory nucleic acids that induce expression
CC of cell surface antigens and antibodies. The methods are useful for
CC treating or preventing cancer such as basal cell carcinoma, bladder
CC cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC breast cancer, cervical cancer, colon and rectum cancer, connective
CC tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
CC cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin
CC cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC present sequence is an immunostimulatory oligonucleotide described in the
CC exemplification of the invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 129
ABL39324/c
ID ABL39324 standard; DNA; 18 BP.
XX
AC ABL39324;
XX
DT 16-APR-2002 (first entry)
XX
DE Immunostimulatory nucleic acid SEQ ID NO: 756.
XX
KW Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
KW angiogenesis; metastasis; cytostatic; ss.
XX
OS Synthetic.
XX
PN WO200197843-A2.
XX
PD 27-DEC-2001.
XX
PF 22-JUN-2001; 2001WO-US020154.
XX
PR 22-JUN-2000; 2000US-0213346P.
XX
PA (IOWA) UNIV IOWA RES FOUND.
XX
PI Weiner G, Hartmann G;
XX
DR WPI; 2002-154611/20.
XX
PT Treating or preventing cancer, such as basal cell carcinoma, comprises
PT administering immunostimulatory nucleic acids that induce expression of
PT cell surface antigens and antibodies to a subject having or at risk of
PT developing cancer.
XX
PS Disclosure; Page 288; 312pp; English.
XX
CC The present invention relates to methods for treating or preventing
CC cancer, involving administering to a subject having or at risk of
CC developing cancer immunostimulatory nucleic acids that induce expression
CC of cell surface antigens and antibodies. The methods are useful for
CC treating or preventing cancer such as basal cell carcinoma, bladder
CC cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC breast cancer, cervical cancer, colon and rectum cancer, connective
CC tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
CC cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin

```
CC   cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC   present sequence is an immunostimulatory oligonucleotide described in the
CC   exemplification of the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 130
ABA97468/c
ID   ABA97468 standard; DNA; 18 BP.
XX
AC   ABA97468;
XX
DT   16-APR-2002  (first entry)
XX
DE   Bcl-2 targeted antisense peptide nucleic acid SEQ ID NO: 14.
XX
KW   Peptide nucleic acid; PNA; polyamide backbone; phosphoryl radical;
KW   cytostatic; virucide; dermatological; antiasthmatic; cancer; antisense;
KW   viral infection; vitiligo; pigmentation disorder; asthma; ss.
XX
OS   Unidentified.
OS   Synthetic.
XX
PN   WO200179249-A2.
XX
PD   25-OCT-2001.
XX
PF   07-APR-2001; 2001WO-EP004027.
XX
PR   18-APR-2000; 2000DE-01019136.
XX
PA   (AVET ) AVENTIS PHARMA DEUT GMBH.
XX
PI   Uhlmann E,  Breipohl G,  Will DW;
XX
DR   WPI; 2002-089643/12.
XX
PT   New peptide nucleic acid derivatives, useful e.g. for treating tumors and
PT   diagnosis, have N-terminal phosphoryl residue for improving e.g.
PT   solubility in water.
XX
PS   Disclosure; Page 79; 96pp; German.
XX
CC   The present invention relates to peptide nucleic acid (PNA) derivatives.
CC   These can be used in the treatment of cancer, viral infections, vitiligo
CC   or other pigmentation disorders, and asthma. The present sequence is an
CC   oligonucleotide fragment of a PNA described in the exemplification of the
CC   invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 131
ABV73939/c
ID   ABV73939 standard; DNA; 18 BP.
XX
AC   ABV73939;
XX
DT   13-JAN-2003  (first entry)
XX
DE   Methylated CpG oligonucleotide 1812.
XX
KW   Immunostimulant; CpG; infection; allergy; asthma; cancer; anaemia;
KW   thrombocytopaenia; neutropaenia; antimicrobial; antiasthmatic;
KW   cytostatic; antianaemic; antiallergic; haemostatic; phosphorothioate; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .18
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "phosphorothioate linkage"
FT   modified_base   2
FT                   /*tag=  b
FT                   /mod_base= m5c
FT   modified_base   4
FT                   /*tag=  c
FT                   /mod_base= m5c
FT   modified_base   5
FT                   /*tag=  d
FT                   /mod_base= m5c
FT   modified_base   6
FT                   /*tag=  e
FT                   /mod_base= m5c
FT   modified_base   9
FT                   /*tag=  f
FT                   /mod_base= m5c
FT   modified_base   13
FT                   /*tag=  g
FT                   /mod_base= m5c
FT   modified_base   15
FT                   /*tag=  h
FT                   /mod_base= m5c
FT   modified_base   16
FT                   /*tag=  i
FT                   /mod_base= m5c
XX
PN   WO200269369-A2.
XX
PD   06-SEP-2002.
XX
PF   10-DEC-2001; 2001WO-IB002888.
XX
PR   08-DEC-2000; 2000US-0254341P.
XX
PA   (COLE-) COLEY PHARM GROUP LTD.
XX
PI   Schetter C,  Vollmer J;
XX
DR   WPI; 2002-723213/78.
XX
PT   New compositions comprising CpG-like immunostimulatory nucleic acids,
PT   useful for treating or preventing infectious diseases, cancer, allergy,
PT   asthma, immunodeficiency, anemia, thrombocytopenia or neutropenia.
XX
PS   Example 1; Page 88; 148pp; English.
XX
CC   The present sequence is that of methylated CpG oligonucleotide 1812, a
CC   methylated version of CpG oligonucleotide 1758 (see ABV73938).
CC   Oligonucleotide 1812 was used in examples of the invention in which
CC   methylated CpG oligonucleotides and their non-methylated CpG counterparts
CC   were compared for immunostimulant activity. In these examples, most
CC   methylated CpG oligonucleotides exhibited B cell stimulatory potential at
CC   almost the same level as the corresponding unmethylated sequences. An
CC   exception was oligonucleotide 1812. Methylated CpG oligonucleotides of
CC   the invention are useful for inducing an immune response in a subject,
CC   including humans, for the treatment or prevention of an infectious
CC   disease, cancer, allergy or asthma, for enhancing or stimulating bone
```

```
CC   marrow proliferation in an immunodeficiency, particularly in a subject
CC   undergoing chemotherapy, for enhancing erythropoiesis in anaemia, for
CC   enhancing thrombopoiesis in thrombocytopaenia, for enhancing neutrophil
CC   proliferation in neutropaenia, and for inducing cytokine (e.g.
CC   interleukin (IL)-1 beta, IL-2, IL-6, IL-12, IL-18, TNF, interferon-alpha
CC   or interferon-gamma) production (all claimed)
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 132
ABV73938/c
ID   ABV73938 standard; DNA; 18 BP.
XX
AC   ABV73938;
XX
DT   13-JAN-2003  (first entry)
XX
DE   CpG oligonucleotide 1758 (G3139 Genta).
XX
KW   Immunostimulant; CpG; infection; allergy; asthma; cancer; anaemia;
KW   thrombocytopaenia; neutropaenia; antimicrobial; antiasthmatic;
KW   cytostatic; antianaemic; antiallergic; haemostatic; phosphorothioate; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .18
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "phosphorothioate linkage"
XX
PN   WO200269369-A2.
XX
PD   06-SEP-2002.
XX
PF   10-DEC-2001; 2001WO-IB002888.
XX
PR   08-DEC-2000; 2000US-0254341P.
XX
PA   (COLE-) COLEY PHARM GROUP LTD.
XX
PI   Schetter C,  Vollmer J;
XX
DR   WPI; 2002-723213/78.
XX
PT   New compositions comprising CpG-like immunostimulatory nucleic acids,
PT   useful for treating or preventing infectious diseases, cancer, allergy,
PT   asthma, immunodeficiency, anemia, thrombocytopenia or neutropenia.
XX
PS   Example 1; Page 88; 148pp; English.
XX
CC   The present sequence is that of unmethylated CpG oligonucleotide 1758
CC   (antisense ODN G3139, Genta). Oligonucleotide 1758 was used in examples
CC   of the invention in which unmethylated CpG oligonucleotides were compared
CC   with CpG-like nucleic acids for their immunostimulant activity. The CpG-
CC   like nucleic acids had substitutions of C, G or the C and G dinucleotide
CC   of CpG with e.g. methylated C for C (see ABV73935), inosine for G (see
CC   ABV73937) and ZpY for CpG (see ABV73936). In these examples, most
CC   methylated CpG oligonucleotides exhibited B cell stimulatory potential
CC   almost to the same degree as the corresponding unmethylated sequences. An
CC   exception was oligonucleotide 1812 (see ABV73939), the methylated
CC   counterpart of the present sequence. Methylated CpG, CpI and ZpY
CC   oligonucleotides of the invention are useful for inducing an immune
CC   response in a subject, including humans, for the treatment or prevention
CC   of an infectious disease, cancer, allergy or asthma, for enhancing or
CC   stimulating bone marrow proliferation in an immunodeficiency,
CC   particularly in a subject undergoing chemotherapy, for enhancing
CC   erythropoiesis in anaemia, for enhancing thrombopoiesis in
CC   thrombocytopaenia, for enhancing neutrophil proliferation in
CC   neutropaenia, and for inducing cytokine (e.g. interleukin (IL)-1 beta, IL
CC   -2, IL-6, IL-12, IL-18, TNF, interferon-alpha or interferon-gamma)
CC   production (all claimed)
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 133
AAL46661
ID   AAL46661 standard; DNA; 18 BP.
XX
AC   AAL46661;
XX
DT   05-AUG-2002  (first entry)
XX
DE   Human bcl-2 mRNA PCR primer #1.
XX
KW   Human; bcl-2; cancer detection; disseminated cancer cell; cytostatic;
KW   PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200237113-A2.
XX
PD   10-MAY-2002.
XX
PF   05-NOV-2001; 2001WO-EP012786.
XX
PR   03-NOV-2000; 2000DE-01054635.
PR   03-NOV-2000; 2000US-0245854P.
XX
PA   (GIES/) GIESING M.
XX
PI   Giesing M,  Grill H,  Boeckmann B,  Suchy B;
XX
DR   WPI; 2002-426739/45.
XX
PT   Clinically validating target from disseminated cancer cells by
PT   determining whether status of target determined in cancer cells of
PT   individuals correlates with cancer-related information about clinical
PT   status of individuals.
XX
PS   Example 3; Page 55; 57pp; English.
XX
CC   The present invention relates to a method for the clinical validation of
CC   a target from disseminated cancer cells, characterised in that for a
CC   population of individuals it is determined whether a status of the target
CC   determined in disseminated cancer cells of the individuals correlates
CC   with at least one cancer-related information about the clinical status of
CC   the individuals. The method is useful for clinically validating target
CC   from disseminated cancer cells. The present sequence is a PCR primer used
CC   to demonstrate the method of the invention
XX
SQ   Sequence 18 BP; 3 A; 4 C; 8 G; 3 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        406 GAGCTCTTCAGGGACGGG 423
```

```
                    ||||||||||||||||||
Db          1 GAGCTCTTCAGGGACGGG 18


RESULT 134
AAL43435/c
ID   AAL43435 standard; DNA; 18 BP.
XX
AC   AAL43435;
XX
DT   02-SEP-2002  (first entry)
XX
DE   Immunostimulatory oligonucleotide CpG1758.
XX
KW   Immunostimulatory oligonucleotide; ds; vaccine; adjuvant composition;
KW   CpG oligonucleotide; tocol; immunoprophylaxis; immunotherapy;
KW   bacterial infection; viral infection; parasitic infection; cancer;
KW   allergy; atherosclerosis; Alzheimer's disease; tuberculosis; AIDS;
KW   hepatitis B virus; CpG1758.
XX
OS   Synthetic.
XX
PN   WO200232454-A1.
XX
PD   25-APR-2002.
XX
PF   16-OCT-2001; 2001WO-EP011985.
XX
PR   18-OCT-2000; 2000GB-00025577.
XX
PA   (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS.
XX
PI   Garcon N,  Gerard CMG,  Stephenne J;
XX
DR   WPI; 2002-499992/53.
XX
PT   Adjuvant composition useful in vaccine composition for use in medicine,
PT   comprises combination of immunostimulatory oligonucleotide and tocol.
XX
PS   Claim 5; Page 30; 42pp; English.
XX
CC   The invention relates to an adjuvant composition comprising a combination
CC   of an immunostimulatory oligonucleotide (i.e. a CpG oligonucleotide) and
CC   a tocol (i.e. an oil in water emulsion). The adjuvant composition of the
CC   invention is useful for the treatment (e.g. immunoprophylaxis and
CC   immunotherapy) of: bacterial, viral and parasitic infections; cancer;
CC   allergy; atherosclerosis; Alzheimer's disease; tuberculosis; AIDS; and
CC   hepatitis B virus infection. The present DNA sequence represents an
CC   immunostimulatory CpG oligonucleotide of the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 135
ABV74424/c
ID   ABV74424 standard; DNA; 18 BP.
XX
AC   ABV74424;
XX
DT   13-JAN-2003  (first entry)
XX
DE   Immunostimulatory IL-13 oligonucleotide CpG 1758 SEQ ID NO 6.
XX
KW   Human; mouse; IL-13; IL-4; cytokine; antiinflammatory; antiasthmatic;
KW   antiallergic; anthelmintic; vulnerary; cytostatic; hepatotropic; asthma;
KW   chronic obstructive pulmonary disease; COPD; interleukin 13; helminth;
KW   infection; cirrhosis; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200270711-A1.
XX
PD   12-SEP-2002.
XX
PF   01-MAR-2002; 2002WO-GB000900.
XX
PR   03-MAR-2001; 2001GB-00005360.
XX
PA   (GLAX ) GLAXO GROUP LTD.
XX
PI   Ashman C,  Crowe JS,  Ellis JH,  Lewis AP;
XX
DR   WPI; 2002-740766/80.
XX
PT   New isolated proteins capable of raising antibodies in humans, useful for
PT   treating interleukin-13 mediated diseases, e.g. asthma, allergies,
PT   helminth-infection related disorders, fibrosis or cirrhosis of the liver.
XX
PS   Claim 20; Page 54; 83pp; English.
XX
CC   The invention relates to a new isolated protein at least 30% identical to
CC   a human protein comprising a polypeptide, which: (a) contains at least
CC   one mutation characteristic of an analogous non-human protein; (b) is
CC   capable of raising antibodies in human and is sufficiently structurally
CC   similar to the human protein that the antibodies bind to both the human
CC   protein and the polypeptide; and (c) is not an antibody. The proteins,
CC   polynucleotides or vectors encoding them or hosts and compositions
CC   comprising the proteins are useful in medicine for the treatment of IL-13
CC   mediated diseases such as asthma, chronic obstructive pulmonary disease
CC   (COPD) or allergies. The polypeptides or the polynucleotides are useful
CC   for the treating helminth-infection related disorders, fibrosis or
CC   cirrhosis of the liver. The present sequence is that of an
CC   immunostimulatory IL-13 oligonucleotide of the invention, comprising a
CC   CpG dinucleotide motif
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 136
AAL44489/c
ID   AAL44489 standard; DNA; 18 BP.
XX
AC   AAL44489;
XX
DT   08-NOV-2002  (first entry)
XX
DE   CpG motif oligonucleotide #4.
XX
KW   Vaccine; immune response; microparticle; ds; adsorbent surface;
KW   poly(alpha-hydroxy acid); polyhydroxy butyric acid; polycaprolactone;
KW   polyorthoester; polycyanoacrylate; detergent; submicron emulsion;
KW   viral infection; bacterial infection; parasitic infection;
KW   CpG oligonucleotide.
XX
OS   Unidentified.
XX
PN   WO200226209-A2.
XX
PD   04-APR-2002.
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```
XX
PF   28-SEP-2001; 2001WO-US030540.
XX
PR   28-SEP-2000; 2000US-0236105P.
PR   30-AUG-2001; 2001US-0315905P.
XX
PA   (CHIR ) CHIRON CORP.
XX
PI   O'hagan D,  Otten G,  Donnelly JJ,  Polo JM,  Barnett S,  Singh M;
PI   Ulmer J,  Dubensky TW;
XX
DR   WPI; 2002-519084/55.
XX
PT   A microparticle to which a biologically active macromolecule is adsorbed,
PT   for use as a vaccine composition to treat viral, bacterial or parasitic
PT   infections, comprises a polymer microparticle, a detergent and a
PT   submicron emulsion.
XX
PS   Disclosure; Page 46; 100pp; English.
XX
CC   The invention relates to a method of raising an immune response in a host
CC   animal. The method of the invention comprises administering a
CC   microparticle that has an adsorbent surface to which a first biologically
CC   active macromolecule (e.g. a nucleic acid) has been adsorbed. The
CC   microparticle comprises a polymer microparticle of poly(alpha-hydroxy
CC   acid), a polyhydroxy butyric acid, a polycaprolactone, a polyorthoester,
CC   a polycyanoacrylate, a detergent, and submicron emulsion. The method/
CC   microparticle of the invention is useful for immunising a host animal
CC   against viral, bacterial or parasitic infections. The present DNA
CC   sequence represents a CpG oligonucleotide of the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match              2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 137
ABQ78541/c
ID   ABQ78541 standard; DNA; 18 BP.
XX
AC   ABQ78541;
XX
DT   25-NOV-2002  (first entry)
XX
DE   Antisense oligodeoxynucleotide of the human bcl-2 gene.
XX
KW   Antisense oligonucleotide; B cell lymphoma/leukemia-2 gene; bcl-2 gene;
KW   cancer; lymphoma; leukemia; chemotherapeutic agent; bone marrow purging;
KW   autoimmune disease; ss.
XX
OS   Homo sapiens.
XX
PN   US6414134-B1.
XX
PD   02-JUL-2002.
XX
PF   28-NOV-2000; 2000US-00724426.
XX
PR   22-DEC-1988;   88US-00288692.
PR   21-FEB-1992;   92US-00840716.
PR   20-SEP-1993;   93US-00124256.
PR   05-JUN-1995;   95US-00465485.
PR   18-MAY-1998;   98US-00080285.
PR   17-AUG-1999;   99US-00375514.
XX
PA   (UYPE-) UNIV PENNSYLVANIA.
XX
PI   Reed JC;
XX
DR   WPI; 2002-641579/69.
XX
PT   Novel antisense oligonucleotide complementary to B cell lymphoma/leukemia
PT   -2 mRNA, useful for inhibiting cancer cell growth, for treating
PT   autoimmune disorders, and for ex vivo bone marrow purging.
XX
PS   Disclosure; Fig 13A; 41pp; English.
XX
CC   The present sequence represents an antisense oligonucleotide
CC   complementary to B cell lymphoma/leukemia-2 (bcl-2) mRNA. The antisense
CC   oligonucleotide is useful for inhibiting cancer cell (lymphoma or
CC   leukemia cells) growth, for increasing the sensitivity of cancer cells to
CC   cancer chemotherapeutic agents, or for inducing cancer cell death alone
CC   or in combination with any one or more cancer chemotherapeutic agents. It
CC   is also useful for reducing the bcl-2 gene expression or impairing bcl-2
CC   protein function, for ex vivo bone marrow purging, for removing residual
CC   malignant cells from the bone marrow, for inhibiting cancer of neoplastic
CC   cell growth, and for treating autoimmune disease
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match              2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 138
ABQ78538/c
ID   ABQ78538 standard; DNA; 18 BP.
XX
AC   ABQ78538;
XX
DT   25-NOV-2002  (first entry)
XX
DE   Antisense oligodeoxynucleotide of the human bcl-2 gene.
XX
KW   Antisense oligonucleotide; B cell lymphoma/leukemia-2 gene; bcl-2 gene;
KW   cancer; lymphoma; leukemia; chemotherapeutic agent; bone marrow purging;
KW   autoimmune disease; ss.
XX
OS   Homo sapiens.
XX
PN   US6414134-B1.
XX
PD   02-JUL-2002.
XX
PF   28-NOV-2000; 2000US-00724426.
XX
PR   22-DEC-1988;   88US-00288692.
PR   21-FEB-1992;   92US-00840716.
PR   20-SEP-1993;   93US-00124256.
PR   05-JUN-1995;   95US-00465485.
PR   18-MAY-1998;   98US-00080285.
PR   17-AUG-1999;   99US-00375514.
XX
PA   (UYPE-) UNIV PENNSYLVANIA.
XX
PI   Reed JC;
XX
DR   WPI; 2002-641579/69.
XX
PT   Novel antisense oligonucleotide complementary to B cell lymphoma/leukemia
PT   -2 mRNA, useful for inhibiting cancer cell growth, for treating
PT   autoimmune disorders, and for ex vivo bone marrow purging.
XX
PS   Example 18; Col 22; 41pp; English.
XX
```

CC The present sequence represents an antisense oligonucleotide
CC complementary to B cell lymphoma/leukemia-2 (bcl-2) mRNA. The antisense
CC oligonucleotide is useful for inhibiting cancer cell (lymphoma or
CC leukemia cells) growth, for increasing the sensitivity of cancer cells to
CC cancer chemotherapeutic agents, or for inducing cancer cell death alone
CC or in combination with any one or more cancer chemotherapeutic agents. It
CC is also useful for reducing the bcl-2 gene expression or impairing bcl-2
CC protein function, for ex vivo bone marrow purging, for removing residual
CC malignant cells from the bone marrow, for inhibiting cancer of neoplastic
CC cell growth, and for treating autoimmune disease
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 139
ABN88303/c
ID ABN88303 standard; DNA; 18 BP.
XX
AC ABN88303;
XX
DT 14-AUG-2002 (first entry)
XX
DE Immunostimulatory oligonucleotide CpG 1758 SEQ ID NO:2.
XX
KW Immunostimulatory; CpG; vaccine; cancer; cancer antigen; immunogenic;
KW unmethylated CpG dinucleotide; cytostatic; antimicrobial; antiallergic;
KW immunosuppressive; tumour antigen; immune response; infectious disease;
KW allergy; autoimmune disease; saponin; ss.
XX
OS Synthetic.
XX
PN WO200232450-A2.
XX
PD 25-APR-2002.
XX
PF 16-OCT-2001; 2001WO-EP011984.
XX
PR 18-OCT-2000; 2000GB-00025573.
PR 18-OCT-2000; 2000GB-00025574.
PR 18-OCT-2000; 2000US-00690921.
XX
PA (SMIK) SMITHKLINE BEECHAM BIOLOGICALS.
XX
PI Garcon N, Gerard CMG, Stephenne J;
XX
DR WPI; 2002-471376/50.
XX
PT Immunogenic composition useful for treating patients suffering from
PT cancer comprising cancer antigens e.g., MAGE, prostase, along with
PT adjuvant combination comprising immunostimulatory oligonucleotide and
PT saponin.
XX
PS Claim 6; Page 33; 49pp; English.
XX
CC The present invention describes an immunogenic composition (I)
CC comprising: (a) a cancer antigen (CA) e.g. MAGE or prostase antigens
CC linked to heterologous fusion partner, prostase fragments comprising at
CC least 20 amino acids of prostase, mutated prostase, P501S, Cripto, or
CC Her2-neu derivatives devoid of substantial portion of Her-2 neu
CC transmembrane domain; and (b) an adjuvant comprising saponin and
CC immunostimulatory oligonucleotide. (I) has cytostatic, antimicrobial,
CC antiallergic and immunosuppressive activities, and can be used in vaccine
CC production. (I) is useful for treating a patient suffering from or
CC susceptible to a cancer expressing a Her-2 neu or prostate
CC specific/tumour antigen. (I) is also useful for treating a patient
CC suffering from or susceptible to a cancer expressing any of MAGE,
CC prostase, P501S or Cripto. The formulations containing tumour antigens
CC are useful for immunotherapeutic treatment of prostate, breast,
CC colorectal, lung, pancreatic, renal, or melanoma cancers. (I) is useful
CC for inducing an immune response in an individual, and for treating a
CC mammal susceptible to or suffering from an infectious disease or cancer,
CC or allergy or autoimmune disease. (I) is useful as a medicament. The
CC immunostimulatory oligonucleotides (CpG) (see ABN88302 to ABN88306) and
CC saponin and optionally a lipopolysaccharide combination are extremely
CC potent adjuvants. The oligonucleotides in the adjuvant and vaccine
CC compositions act synergistically with the combined saponin/
CC lipopolysaccharide in the induction of antigen specific immune responses
CC leading to enhanced tumour regression
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 140
AAD22796/c
ID AAD22796 standard; DNA; 18 BP.
XX
AC AAD22796;
XX
DT 26-FEB-2002 (first entry)
XX
DE Human bcl-2 antisense oligonucleotide.
XX
KW Treatment; tumour; lipid-therapeutic agent particle; sphingomyelin;
KW distearoylphosphatidylcholine; palmitoyloleoyl phophatidylcholine; DSPC;
KW POPC; 1,2-dioleoyl-sn-3-phosphoethanolamine; cholesterol; SM; DOPE;
KW inflammation; bcl-2 gene; human; infectious disease; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT modified_base 1. .20
FT /*tag= a
FT /mod_base= OTHER
FT /note= "Optionally phosphorothioate backbone"
XX
PN US6287591-B1.
XX
PD 11-SEP-2001.
XX
PF 14-MAY-1998; 98US-00078954.
XX
PR 14-MAY-1997; 97US-00856374.
XX
PA (INEX-) INEX PHARM CORP.
XX
PI Semple SC, Klimuk SK, Harasym T, Hope MJ, Ansell SM, Cullis P;
PI Scherrer P, Debeyer D;
XX
DR WPI; 2002-024658/03.
XX
PT Composition useful for treatment of e.g. tumors comprises particles
PT comprising lipid portion and a charged therapeutic agent.
XX
PS Disclosure; Col 15-16; 48pp; English.
XX
CC The invention relates to a composition useful for treatment of e.g.
CC tumours. The composition comprises lipid-therapeutic agent particles
CC comprising a lipid portion and a charged therapeutic agent which is
CC encapsulated in the lipid portion. The lipid portion comprises a first
CC lipid component selected from lipids containing a protonatable or

```
CC   deprotonatable (preferably protonatable) group that has a pKa such that
CC   the lipid is in charged form at a first pH and in neutral form at a
CC   second pH. The pKa of lipid component is from 4-11. The first lipid
CC   component is further selected such that the charged form is cationic when
CC   the therapeutic agent is anionic and vice versa; the second lipid
CC   component is selected from lipids that prevent particle aggregation
CC   during lipid-therapeutic agent particles formation and which exchange out
CC   the lipid particle at a rate greater than PEG-CerC20; third lipid
CC   component is a neutral lipid selected from distearoylphosphatidylcholine
CC   (DSPC), palmitoyloleoyl phophatidylcholine (POPC), 1,2-dioleoyl-sn-3-
CC   phosphoethanolamine (DOPE) or SM (sphingomyelin) and a fourth lipid
CC   component which is cholesterol. Compositions of the invention are used
CC   for treatment or prevention of a disease caused by aberrant expression of
CC   a gene preferably ICAM-1 (Intracellular adhesion molecule-1), c-myc, c-
CC   myb, ras, raf, erb-B-2, PKC-alpha (phosphokinase C-alpha), IGF-1R
CC   (insulin growth factor 1-receptor), bcl-2, EGFR (epidermal growth factor
CC   receptor), VEGF and VEGF-R-1 (vascular endothelial growth factor receptor
CC   1) in a mammal or by inflammations such as tumour or an infectious
CC   disease. The present sequence is an antisense oligonucleotide targetted
CC   to human bcl-2 gene
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 141
ABL58454/c
ID   ABL58454 standard; DNA; 18 BP.
XX
AC   ABL58454;
XX
DT   30-JUL-2002  (first entry)
XX
DE   CpG immunostimulatory oligonucleotide OLIGO 2.
XX
KW   Pharmaceutical; dermatological; skin; microneedle; vaccine; CpG;
KW   immunostimulatory; ss.
XX
OS   Synthetic.
XX
PN   WO200207813-A1.
XX
PD   31-JAN-2002.
XX
PF   18-JUL-2001; 2001WO-EP008339.
XX
PR   21-JUL-2000; 2000GB-00017999.
XX
PA   (SMIK ) SMITHKLINE BEECHAM BIOLOGICALS.
PA   (SMIK ) SMITHKLINE BEECHAM PLC.
XX
PI   Dalton CC,  Easeman RL,  Garcon N;
XX
DR   WPI; 2002-188613/24.
XX
PT   Pharmaceutical delivery device for rapid and efficient delivery of e.g.
PT   vaccine into or through skin comprises skin-piercing member and
PT   pharmaceutical reservoir.
XX
PS   Disclosure; Page 22; 39pp; English.
XX
CC   The invention relates to a pharmaceutical delivery device that contains
CC   at least one skin-piercing member comprising a solid, biodegradable
CC   reservoir containing the pharmaceutical. The device is used for delivery
CC   of vaccines into the skin. The skin patch for delivery of vaccines
CC   comprises an array of microneedles or microblades coated with a glassy
CC   sugar reservoir medium containing the vaccine. The device is storage
CC   stable and efficiently and painlessly delivers the vaccines through or
CC   into the skin in a short time. It is suitable for use in patients with a
CC   fear of needles. Sequences ABL58453-455 represent CpG immunostimulatory
CC   oligonucleotides which contain phosphorothioate modified internucleotide
CC   linkages
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 142
AAL39240/c
ID   AAL39240 standard; DNA; 18 BP.
XX
AC   AAL39240;
XX
DT   05-SEP-2002  (first entry)
XX
DE   Murine Toll-like receptor related CpG DNA SEQ ID No 115.
XX
KW   Murine Toll-like receptor; TLR9; TLR7; TLR8; ISNA; ds.
XX
OS   Unidentified.
XX
PN   WO200222809-A2.
XX
PD   21-MAR-2002.
XX
PF   17-SEP-2001; 2001WO-US029229.
XX
PR   15-SEP-2000; 2000US-0233035P.
PR   23-JAN-2001; 2001US-0263657P.
PR   17-MAY-2001; 2001US-0291726P.
PR   22-JUN-2001; 2001US-0300210P.
XX
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Bauer S,  Lipford G,  Wagner H;
XX
DR   WPI; 2002-393964/42.
XX
PT   New isolated murine Toll-like receptor (TLR)9, TLR7, TLR8 polypeptides,
PT   useful for identifying species specificity of immunostimulatory nucleic
PT   acid and identifying immunostimulatory nucleic acids.
XX
PS   Disclosure; Page 77; 195pp; English.
XX
CC   The invention relates to isolated murine Toll-like receptors (TLR)9, TLR7
CC   and TLR8 polypeptides. These polypeptides comprise fully defined
CC   sequences of 1032, 1050 or 1032 amino acids as given in specification, or
CC   their fragments, where TLR9, TLR7 and TLR8 polypeptides or their
CC   fragments have an amino acid sequence which is identical to human TLR9,
CC   TLR7 or TLR8 polypeptides or their fragment except for at least one amino
CC   acid of a murine TLR polypeptide. The isolated nucleic acids of the
CC   invention are useful for inhibiting TLR9 signalling activity in a cell.
CC   TLR7, TLR8 and TLR9 polypeptides are useful for identifying nucleic acid
CC   molecules which interact with a TLR polypeptide or its fragment. The
CC   TLR7, TLR8 or TLR9 polypeptides are also useful for identifying ISNA. The
CC   TLR7, TLR8 and TLR9 polypeptides are also useful for comparing TLR9
CC   signalling activity of a test compound (that is not a nucleic acid, and
CC   is a polypeptide or a part of a combinatorial library of compounds) with
CC   an ISNA. The TLR7, TLR8 and TLR9 polypeptides are also useful for
CC   identifying species specificity of an ISNA. The isolated nucleic acids of
CC   the invention are useful as probes or primers. This polynucleotide
CC   sequence represents DNA relating to the isolated Toll-like receptors of
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CC   the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 143
ABS70564/c
ID   ABS70564 standard; DNA; 18 BP.
XX
AC   ABS70564;
XX
DT   25-NOV-2002  (first entry)
XX
DE   Dendritic cell stimulating CpG oligodeoxynucleotide #53.
XX
KW   CpG; ss; dendritic cell; dendritic cell activation; cytostatic;
KW   antiallergic; cancer; immunotherapy; infectious disease; allergy.
XX
OS   Synthetic.
XX
PN   US6429199-B1.
XX
PD   06-AUG-2002.
XX
PF   13-NOV-1998;   98US-00191170.
XX
PR   15-JUL-1994;   94US-00276358.
PR   07-FEB-1995;   95US-00386063.
PR   30-OCT-1996;   96US-00738652.
PR   30-OCT-1997;   97US-00960774.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Krieg AM,  Hartmann G;
XX
DR   WPI; 2002-689667/74.
XX
PT   Activating a dendritic cell for cancer immunotherapy or for treating
PT   infectious or allergy disease, by contacting a dendritic cell with an
PT   isolated nucleic acid containing at least one unmethylated CpG
PT   dinucleotide.
XX
PS   Example 6; Col 32; 52pp; English.
XX
CC   This invention relates to a novel method for activating or causing
CC   maturation of a dendritic cell. The method comprises contacting a
CC   dendritic cell with an isolated nucleic acid containing at least one
CC   unmethylated CpG dinucleotide in an amount effective to activate or cause
CC   maturation of the dendritic cell, where the activation is performed ex
CC   vivo. The method of the invention may have cytostatic or antiallergic
CC   activities. The method of the invention is useful for cancer
CC   immunotherapy or for treating an infectious disease or allergy, by
CC   administering an activated dendritic cell that express a specific cancer,
CC   microbial or allergy causing antigen, to a subject having a cancer
CC   including the cancer antigen, to a subject having an infection with a
CC   microorganism including the microbial antigen or to a subject having an
CC   allergic reaction to the allergy causing antigen, where the activated
CC   dendritic cell is prepared using the method of the invention. The method
CC   is useful for generating a high yield of dendritic cells by administering
CC   an isolated nucleic acid containing at least one unmethylated CpG
CC   dinucleotide, where the nucleic acid is 8-80 bases in length in an amount
CC   effective to activate the dendritic cells to a subject, and isolating
CC   dendritic cells from the subject. The use of CpG allows the generation of
CC   mature dendritic cells from peripheral blood within two days in a well
CC   defined system. The application of CpG for this purpose is superior to
CC   granulocyte macrophage-colony stimulating factor (GM-CSF), which is
CC   currently used for this purpose. CpG oligonucleotides have a longer half
CC   life, are less expensive, and show a greater magnitude of immune effects.
CC   The present sequence represents a CpG oligonucleotide used in the method
CC   of the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 144
ABL53546/c
ID   ABL53546 standard; DNA; 18 BP.
XX
AC   ABL53546;
XX
DT   10-JUN-2002  (first entry)
XX
DE   CpR oligonucleotide.
XX
KW   CpG; autoimmune disease; insulin dependent diabetes mellitus; IDDM;
KW   DNA immunisation; vaccine; antidiabetic; immunotherapy; gene therapy; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .18
FT                    /*tag=  c
FT                    /note= "phosphorothioate linkage"
FT   misc_feature     7. .12
FT                    /*tag=  a
FT                    /note= "CpG motif"
FT   misc_feature     11. .16
FT                    /*tag=  b
FT                    /note= "CpG motif"
XX
PN   WO200216549-A2.
XX
PD   28-FEB-2002.
XX
PF   23-AUG-2001; 2001WO-IL000790.
XX
PR   25-AUG-2000; 2000US-0227853P.
XX
PA   (YEDA ) YEDA RES & DEV CO LTD.
XX
PI   Cohen IR,  Quintana FJ;
XX
DR   WPI; 2002-227369/28.
XX
PT   Treating or preventing an ongoing autoimmune disease e.g. diabetes,
PT   comprises vaccination with a DNA sequence comprising a CpG motif.
XX
PS   Disclosure; Page 10; 53pp; English.
XX
CC   The present sequence is that of an example of a CpR oligonucleotide. The
CC   oligonucleotide includes 2 copies of a CpG motif comprising either
CC   dinucleotide CG flanked on the 5' side by 2 purines and on the 3' side by
CC   2 pyrimidines, or the motif given in ABL53549. The oligonucleotide is
CC   synthesised with a phosphorothioate modified backbone to improve nuclease
CC   resistance. The invention relates to methods for the prevention or
CC   treatment of autoimmune disease, particularly insulin dependent diabetes
CC   mellitus (IDDM). A DNA vaccine which includes a CpG motif, such as the
CC   present sequence or the CpG oligonucleotide given in ABL53541, is used.
CC   The vaccine may also include DNA encoding an antigen associated with the
CC   autoimmune disease
```

```
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 145
ABL53544/c
ID   ABL53544 standard; DNA; 18 BP.
XX
AC   ABL53544;
XX
DT   10-JUN-2002  (first entry)
XX
DE   CpR oligonucleotide.
XX
KW   CpG; autoimmune disease; insulin dependent diabetes mellitus; IDDM;
KW   DNA immunisation; vaccine; antidiabetic; immunotherapy; gene therapy; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .18
FT                    /*tag=  c
FT                    /note= "phosphorothioate linkage"
FT   misc_feature     7. .12
FT                    /*tag=  a
FT                    /note= "CpG motif"
FT   misc_feature     13. .18
FT                    /*tag=  b
FT                    /note= "CpG motif"
XX
PN   WO200216549-A2.
XX
PD   28-FEB-2002.
XX
PF   23-AUG-2001; 2001WO-IL000790.
XX
PR   25-AUG-2000; 2000US-0227853P.
XX
PA   (YEDA ) YEDA RES & DEV CO LTD.
XX
PI   Cohen IR,  Quintana FJ;
XX
DR   WPI; 2002-227369/28.
XX
PT   Treating or preventing an ongoing autoimmune disease e.g. diabetes,
PT   comprises vaccination with a DNA sequence comprising a CpG motif.
XX
PS   Disclosure; Page 10; 53pp; English.
XX
CC   The present sequence is that of an example of a CpR oligonucleotide. The
CC   oligonucleotide includes 2 copies of a CpG motif comprising the
CC   dinucleotide CG flanked on the 5' side by 2 purines and on the 3' side by
CC   2 pyrimidines. The oligonucleotide is synthesised with a phosphorothioate
CC   modified backbone to improve nuclease resistance. The invention relates
CC   to methods for the prevention or treatment of autoimmune disease,
CC   particularly insulin dependent diabetes mellitus (IDDM). A DNA vaccine
CC   which includes a CpG motif, such as the present sequence or the CpG
CC   oligonucleotide given in ABL53541, is used. The vaccine may also include
CC   DNA encoding an antigen associated with the autoimmune disease
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 146
ABL54169/c
ID   ABL54169 standard; DNA; 18 BP.
XX
AC   ABL54169;
XX
DT   12-JUL-2002  (first entry)
XX
DE   Oligonucleotide.
XX
KW   B cell lymphoma/leukaemia-2; bcl-2; oncogene; antisense; lymphoma;
KW   leukaemia; colon carcinoma; rectal carcinoma; pancreatic cancer;
KW   breast cancer; ovarian cancer; prostate cancer; renal cell carcinoma;
KW   hepatoma; bile duct carcinoma; choriocarcinoma; cervical cancer;
KW   testicular cancer; lung carcinoma; bladder carcinoma; melanoma;
KW   head and neck cancer; brain cancer; cytostatic; human; gene therapy; ss.
XX
OS   Homo sapiens.
XX
PN   WO200217852-A2.
XX
PD   07-MAR-2002.
XX
PF   23-AUG-2001; 2001WO-US026414.
XX
PR   25-AUG-2000; 2000US-0227970P.
PR   29-SEP-2000; 2000US-0237009P.
PR   10-NOV-2000; 2000US-00709170.
XX
PA   (GENT-) GENTA INC.
XX
PI   Warrel RP,  Klem RE,  Fingert H;
XX
DR   WPI; 2002-371796/40.
XX
PT   Treating or preventing cancer, tumors and carcinomas, comprises
PT   administering B cell lymphoma/leukemia-2 antisense oligonucleotide at
PT   high doses for short period for time with one or more cancer
PT   therapeutics.
XX
PS   Disclosure; Page 63; 64pp; English.
XX
CC   The present invention is related to the use of a B cell
CC   lymphoma/leukaemia-2 (bcl-2) antisense oligonucleotide, particularly
CC   G3139 (see ABL54148), to treat and prevent bcl-2 related disorders.
CC   Administration at high doses results in significant therapeutic
CC   responses, including low toxicity, high tolerance and prolonged survival.
CC   Administration at high doses for short periods of time (less than 14
CC   days) also provides significant therapeutic responses in the treatment of
CC   cancer. The bcl-2 antisense oligomer may also be used to increase the
CC   sensitivity of a subject to cancer therapeutics, and in combination with
CC   hormone treatment or gene therapy. Conditions that may be treated or
CC   prevented include cancer of the haematopoietic system, skin, bone and
CC   soft tissue, reproductive system, genitourinary system, breast, endocrine
CC   system, brain, central nervous system, peripheral nervous system, kidney,
CC   lung, respiratory system, thorax, gastrointestinal and alimentary canal,
CC   lymph nodes, pancreas, hepatobiliary system, or cancer of unknown primary
CC   site, non-Hodgkin's lymphoma, Hodgkin's lymphoma, leukaemia, colon
CC   carcinoma, rectal carcinoma, pancreatic, breast, ovarian, prostate,
CC   cervical, testicular, head and neck or brain cancer, renal cell
CC   carcinoma, hepatoma, bile duct carcinoma, choriocarcinoma, lung
CC   carcinoma, bladder carcinoma and melanoma (all claimed). Note: The
CC   present sequence is given in the Sequence Listing from the present
CC   invention but the Seq ID No. is not referred to within the specification
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;
```

```
  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 147
ABL54148/c
ID   ABL54148 standard; DNA; 18 BP.
XX
AC   ABL54148;
XX
DT   12-JUL-2002  (first entry)
XX
DE   Bcl-2 antisense oligonucleotide G3139.
XX
KW   B cell lymphoma/leukaemia-2; bcl-2; oncogene; antisense; lymphoma;
KW   leukaemia; colon carcinoma; rectal carcinoma; pancreatic cancer;
KW   breast cancer; ovarian cancer; prostate cancer; renal cell carcinoma;
KW   hepatoma; bile duct carcinoma; choriocarcinoma; cervical cancer;
KW   testicular cancer; lung carcinoma; bladder carcinoma; melanoma;
KW   head and neck cancer; brain cancer; cytostatic; human; gene therapy; ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .18
FT                   /*tag=  a
FT                   /note= "the oligonucleotide includes at least 2
FT                   phosphorothioate linkages"
XX
PN   WO200217852-A2.
XX
PD   07-MAR-2002.
XX
PF   23-AUG-2001; 2001WO-US026414.
XX
PR   25-AUG-2000; 2000US-0227970P.
PR   29-SEP-2000; 2000US-0237009P.
PR   10-NOV-2000; 2000US-00709170.
XX
PA   (GENT-) GENTA INC.
XX
PI   Warrel RP,  Klem RE,  Fingert H;
XX
DR   WPI; 2002-371796/40.
XX
PT   Treating or preventing cancer, tumors and carcinomas, comprises
PT   administering B cell lymphoma/leukemia-2 antisense oligonucleotide at
PT   high doses for short period for time with one or more cancer
PT   therapeutics.
XX
PS   Claim 18; Page 44; 64pp; English.
XX
CC   The present sequence is that of B cell lymphoma/leukaemia-2 (bcl-2)
CC   antisense oligonucleotide G3139. This oligonucleotide is complementary to
CC   the first 6 codons of the bcl-2 mRNA and hybridises to the respective
CC   target RNA bases. The present invention is directed to the use of bcl-2
CC   antisense oligomers, particularly G3139, to treat and prevent bcl-2
CC   related disorders. Administration at high doses results in significant
CC   therapeutic responses, including low toxicity, high tolerance and
CC   prolonged survival. Administration at high doses for short periods of
CC   time (less than 14 days) also provides significant therapeutic responses
CC   in the treatment of cancer. The bcl-2 antisense oligomer may also be used
CC   to increase the sensitivity of a subject to cancer therapeutics, and in
CC   combination with hormone treatment or gene therapy. Conditions that may
CC   be treated or prevented include cancer of the haematopoietic system,
CC   skin, bone and soft tissue, reproductive system, genitourinary system,
CC   breast, endocrine system, brain, central nervous system, peripheral
CC   nervous system, kidney, lung, respiratory system, thorax,
CC   gastrointestinal and alimentary canal, lymph nodes, pancreas,
CC   hepatobiliary system, or cancer of unknown primary site, non-Hodgkin's
CC   lymphoma, Hodgkin's lymphoma, leukaemia, colon carcinoma, rectal
CC   carcinoma, pancreatic, breast, ovarian, prostate, cervical, testicular,
CC   head and neck or brain cancer, renal cell carcinoma, hepatoma, bile duct
CC   carcinoma, choriocarcinoma, lung carcinoma, bladder carcinoma and
CC   melanoma (all claimed). Examples from the invention describe the use of
CC   G3139 to treat patients with advanced malignant melanoma, hormone-
CC   refractory prostate cancer, and refractory or relapsed acute leukaemia
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 148
ACF36817/c
ID   ACF36817 standard; DNA; 18 BP.
XX
AC   ACF36817;
XX
DT   06-NOV-2003  (first entry)
XX
DE   Immunostimulatory CpG oligonucleotide, SEQ ID NO:112.
XX
KW   Human TLR3; Toll-like receptor 3; TLR3 signal transduction pathway;
KW   immunostimulant; drug screening; CpG oligonucleotide; ss.
XX
OS   Synthetic.
XX
PN   WO2003031573-A2.
XX
PD   17-APR-2003.
XX
PF   03-OCT-2002; 2002WO-US031460.
XX
PR   05-OCT-2001; 2001US-0327520P.
XX
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Lipford G;
XX
DR   WPI; 2003-393438/37.
XX
PT   Identifying an immunostimulatory compound by contacting a functional Toll
PT   -like receptor (TLR) 3 with a test compound, and detecting a test
PT   response mediated by the TLR3 signal transduction pathway.
XX
PS   Disclosure; Page 19; 104pp; English.
XX
CC   The invention relates to a method for identifying an immunostimulatory
CC   compound which comprises contacting a functional Toll-like receptor 3
CC   (TLR3) with a test compound, and detecting a test response mediated by
CC   the TLR3 signal transduction pathway. A test compound is deemed to be
CC   immunostimulatory when the test response exceeds the negative control
CC   sequence, or equals or exceeds the reference response. The method is
CC   useful for identifying compounds that modulate TLR3 signalling activity,
CC   particularly immunostimulatory compounds. The method may also be used in
CC   screening for species specificity of an immunostimulatory compound.
CC   Sequences ACF36744-ACF36822 represent exemplary immunostimulatory CpG
CC   oligonucleotides which may be used to stimulate TLR3 signalling activity
CC   according to the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
```

```
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 149
ABX76040/c
ID   ABX76040 standard; DNA; 18 BP.
XX
AC   ABX76040;
XX
DT   31-MAR-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #51.
XX
KW   ss; immunostimulatory nucleic acid; anaemia; thrombocytopenia;
KW   neutropenia; methylated CpG nucleic acid; T-rich nucleic acid;
KW   poly-G nucleic acid; phosphorothioate backbone; chemotherapy;
KW   radiation treatment; stress; red blood cell; haematopoiesis; synergistic.
XX
OS   Synthetic.
XX
PN   US2002165178-A1.
XX
PD   07-NOV-2002.
XX
PF   28-JUN-2001; 2001US-00895007.
XX
PR   28-JUN-2000; 2000US-0214368P.
XX
PA   (SCHE/) SCHETTER C.
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
XX
PI   Schetter C,  Bratzler RL,  Petersen DM;
XX
DR   WPI; 2003-166150/16.
XX
PT   Pharmaceutical composition for treatment of anemia, thrombocytopenia and
PT   neutropenia comprises an immunostimulatory nucleic acid and a medicament
PT   for the respective disease.
XX
PS   Claim 18; Page 8; 27pp; English.
XX
CC   The invention discloses a pharmaceutical composition comprising an
CC   immunostimulatory nucleic acid and either an anaemia medicament,
CC   thrombocytopenia medicament or a neutropenia medicament formulated in a
CC   carrier. The immunostimulatory nucleic acid can be selected from a
CC   methylated CpG nucleic acid, a T-rich nucleic acid, a poly-G nucleic acid
CC   and/or a nucleic acid having a phosphorothioate backbone. The
CC   compositions can be used for the treatment or prevention of anaemia,
CC   thrombocytopenia and neutropenia in a subject preparing to undergo
CC   chemotherapy, radiation treatment, and has received at least one dose of
CC   chemotherapy or radiation treatment. The treatment is required due to the
CC   effect of stress, including chemotherapy, on the formation of red blood
CC   cells, haematopoiesis. The composition provides a synergistic effect
CC   which permits a lower dose of the medicament to be used, thus providing
CC   lower costs associated with using lower doses of the medicament, and
CC   reduced chances of inducing side effects. The efficacy of the combination
CC   is profoundly improved over the use of each of the medicaments alone. The
CC   sequences presented in ABX75990-ABX76123 are the immunostimulatory
CC   nucleic acids disclosed in the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 150
ACA58705/c
ID   ACA58705 standard; DNA; 18 BP.
XX
AC   ACA58705;
XX
DT   10-JUN-2003  (first entry)
XX
DE   Gastric ulcer treatment immunostimulatory nucleic acid #51.
XX
KW   Gastric ulcer; ss; immunostimulant; equine gastric ulcer syndrome; EGUS;
KW   Heliobacter pylori.
XX
OS   Synthetic.
XX
PN   US2002198165-A1.
XX
PD   26-DEC-2002.
XX
PF   01-AUG-2001; 2001US-00920313.
XX
PR   01-AUG-2000; 2000US-0222248P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
XX
PI   Bratzler RL,  Petersen DM;
XX
DR   WPI; 2003-370798/35.
XX
PT   Prevention or treatment of gastric ulcer involves administering nucleic
PT   acid.
XX
PS   Disclosure; Page 13; 45pp; English.
XX
CC   The invention relates to a method of prevention or treatment of gastric
CC   ulcer comprising administering a nucleic acid to a subject in need for
CC   treatment of gastric ulcer. A nucleic acid sample comprising
CC   oligonucleotide 2006 was administered to a mouse model by an oral route
CC   or a vehicle control. Colonisation of mice by Heliobacter pylori was
CC   assessed at time points from 1 day to 1 month after treatment. The
CC   ability of the nucleic acid to reduce H. pylori colonisation was
CC   assessed. The method is useful for preventing or treating a gastric ulcer
CC   on a subject e.g. human or non-human vertebrate animal including dog,
CC   cat, horse (equine gastric ulcer syndrome, EGUS), cow, goat, sheep, pig,
CC   rabbit, turkey, chicken, primate, rat and mouse. The method effectively
CC   treats or prevents gastric ulcers. The present sequence represents an
CC   immunostimulatory nucleic acid for the treatment of gastric ulcers
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 151
ABX13191/c
ID   ABX13191 standard; DNA; 18 BP.
XX
AC   ABX13191;
XX
DT   15-MAY-2003  (first entry)
XX
DE   Antisense oligonucleotide for human bcl-2.
XX
```

```
KW   Human; ss; antisense; bcl-2; leukaemia; tumour; cell death;
KW   drug sensitivity.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .18
FT                   /*tag= a
FT                   /mod_base= OTHER
FT                   /note= "Thio-modified bases"
XX
PN   CN1374088-A.
XX
PD   16-OCT-2002.
XX
PF   09-MAR-2001; 2001CN-00107627.
XX
PR   09-MAR-2001; 2001CN-00107627.
XX
PA   (UYJI-) UNIV JINAN.
XX
PI   Zhang H, Lei X, Shen W;
XX
DR   WPI; 2003-157920/16.
XX
PT   New Bcl-2 gene antisense nucleic acid, useful for inhibiting expression
PT   of the Bcl-2 gene, promoting tumor and leukemia cell death, resisting
PT   leukemia and tumor drug-fast, and raising drug sensitivity.
XX
PS   Claim 1; Page 1 (claims); 10pp; Chinese.
XX
CC   The invention relates to a Bcl-2 gene antisense nucleic acid sequence of
CC   18 thio-modified nucleotides appearing as ABX13191. The antisense
CC   oligonucleotide is useful for inhibiting expression of the Bcl-2 gene,
CC   promoting tumour and leukaemia cell death, resisting leukaemia and
CC   tumours, and raising drug sensitivity. The present sequence is the
CC   antisense oligonucleotide of the invention
XX
SQ   Sequence 18 BP; 3 A; 10 C; 1 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        423 GGTGAACTGGGGGAGGAT 440
              ||||||||||||||||||
Db         18 GGTGAACTGGGGGAGGAT 1


RESULT 152
ABZ76751/c
ID   ABZ76751 standard; DNA; 18 BP.
XX
AC   ABZ76751;
XX
DT   01-APR-2000  (first entry)
XX
DE   Phosphorothioate oligonucleotide SEQ ID NO:1.
XX
KW   Phosphorothioate; salt complex; oligonucleotide synthesis; organic base;
KW   1,1-dioxo-1,2-dihydro-1lambda-6-benzo(d)isothiazol-3-one; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .18
FT                   /*tag= a
FT                   /mod_base= OTHER
FT                   /note= "phosphorothioate linkages"
XX
PN   WO2003004512-A1.
XX
PD   16-JAN-2003.
XX
PF   01-JUL-2002; 2002WO-GB003029.
XX
PR   03-JUL-2001; 2001US-0302717P.
XX
PA   (AVEC-) AVECIA BIOTECHNOLOGY INC.
PA   (AVEC-) AVECIA LTD.
XX
PI   Sinha N, Zedalis WE, Miranda GK;
XX
DR   WPI; 2003-221573/21.
XX
PT   Salt complex useful for oligonucleotide synthesis comprises an organic
PT   base and a 1,1-dioxo-1,2-dihydro-1-lambda-6-benzo(d)isothiazol-3-one.
XX
PS   Example 4; Page 18; 43pp; English.
XX
CC   The present invention describes a salt complex (Q) comprising an organic
CC   base and a 1,1-dioxo-1,2-dihydro-1lambda-6-benzo(d)isothiazol-3-one (I).
CC   Also described: (1) an activator (A1) solution comprising an aprotic
CC   organic solvent, an organic base and (I); (2) synthesis (S1) of an
CC   oligonucleotide using phosphoramidite chemistry involving coupling a
CC   nucleoside or a nascent oligonucleotide having a free hydroxy or thiol
CC   group (preferably a free 5'-hydroxy group) and a nucleoside
CC   phosphoramidite (a) (preferably a nucleoside 3'-phosphoramidite) in the
CC   presence of (I) or an activator comprising a mixture of (I) and an N-
CC   alkylimidazole (preferably N-methylimidazole); (3) condensation (B1) of
CC   an N-mer oligonucleotide or a nucleoside of formula (II) with the
CC   nucleoside phosphoramidite of formula (Ia) involving contacting (II) with
CC   (Ia) and (I) to form an oligonucleotide having 5'-trivalent phosphorus
CC   linkage of formula (III); and (4) preparation (C1) of (Q) involving
CC   contacting (I) with an organic base. (I) can be used as an activator in
CC   oligonucleotide synthesis. (I) in the presence of an organic base
CC   promotes phosphoramidite condensation reaction with at least equal
CC   efficiency as tetrazole with fewer side products. The complex is non-
CC   explosive, therefore safer to use than tetrazole, particularly in large-
CC   scale synthesis of oligonucleotide. The present sequence represents a
CC   phosphorothioate oligonucleotide which is used in an example from the
CC   present invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 153
ACC59107/c
ID   ACC59107 standard; DNA; 18 BP.
XX
AC   ACC59107;
XX
DT   04-JUL-2003  (first entry)
XX
DE   CpG oligonucleotide 2 SEQ ID NO: 2.
XX
KW   CpG; pharmaceutical composition; saponin; sterol; antibacterial;
KW   anti-HIV; hepatotropic; virucide; protozoacide; cytostatic; nootropic;
KW   neuroprotective; antiallergic; antiarteriosclerotic; antimicrobial;
KW   vaccine; cancer; allergy; atherosclerosis; Alzheimer's disease; ds.
XX
OS   Unidentified.
XX
PN   WO2003028760-A2.
XX
PD   10-APR-2003.
XX
PF   30-SEP-2002; 2002WO-EP010931.
```

```
XX
PR   01-OCT-2001; 2001GB-00023580.
XX
PA   (GLAX ) GLAXOSMITHKLINE BIOLOGICALS SA.
XX
PI   Garcon N;
XX
DR   WPI; 2003-430170/40.
XX
PT   Composition useful for treating diseases due to pathogens e.g. HIV, or
PT   varicella zoster virus, comprises a saponin and a sterol formulated in a
PT   liposome.
XX
PS   Disclosure; Page 9; 27pp; English.
XX
CC   The invention relates to a novel pharmaceutical composition comprising a
CC   saponin and a sterol formulated in a liposome. A composition of the
CC   invention has antibacterial, anti-HIV, hepatotropic, virucide,
CC   protozoacide, cytostatic, nootropic, neuroprotective, antiallergic,
CC   antiarteriosclerotic, and antimicrobial activity, and works as a vaccine.
CC   The composition is useful for treating diseases due to pathogens e.g.
CC   HIV, Varicella Zoster virus, Herpes simplex virus type 1 and 2, human
CC   cytomegalovirus, Dengue virus, hepatitis A, B, C and E, respiratory
CC   syncytial virus, human papilloma virus, influenza virus, Hemophilus
CC   influenzae, Meningococcus, Salmonella, Neisseria, Borrelia, Chlamydia,
CC   Bordetella, Streptococcus, Mycoplasma, Mycobacteria, Plasmodium and
CC   Toxoplasm. The composition is also useful for treating cancer, allergy
CC   and other infectious diseases, atherosclerosis, and Alzheimer's disease.
CC   The present sequence is used in the exemplification of the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 154
ABZ80168/c
ID   ABZ80168 standard; DNA; 18 BP.
XX
AC   ABZ80168;
XX
DT   23-MAY-2003  (first entry)
XX
DE   Immunostimulatory oligonucleotide SEQ ID NO:40.
XX
KW   Immunostimulation; immune response; natural killer cell; interferon;
KW   type 1 interferon; IFN; cancer; infectious disease; allergic disorder;
KW   immune related disorder; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .18
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "optionally phosphorothioate backbone"
XX
PN   WO2003015711-A2.
XX
PD   27-FEB-2003.
XX
PF   19-AUG-2002; 2002WO-US026468.
XX
PR   17-AUG-2001; 2001US-0313273P.
PR   03-JUL-2002; 2002US-0393952P.
XX
PA   (COLE-) COLEY PHARM GROUP INC.
PA   (COLE-) COLEY PHARM GMBH.
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Krieg AM,  Vollmer J,  Ulhman E;
XX
DR   WPI; 2003-268241/26.
XX
PT   New immunostimulatory nucleic acid, useful for preparing a composition
PT   for treating an allergic condition.
XX
PS   Example 1; Page 42; 115pp; English.
XX
CC   The present invention describes immunostimulatory nucleic acids of 14-100
CC   nucleotides in length comprising the formula 5' X1DCGHX2 3' (I), where X1
CC   or X2 = independently any sequence 0-10 nucleotides; D = nucleotide other
CC   than C; C = cytosine; G = guanine; H = nucleotide other than G. The
CC   immunostimulatory nucleic acid further comprises a sequence consisting of
CC   F and N positioned immediately 5' to X1 or 3' to X2 and N is a B cell
CC   neutralising sequence, where N begins with a CGG trinucleotide and is at
CC   least 10 nucleotides long and P is GC-rich palindrome containing sequence
CC   at least 10 nucleotides long. Also described: (1) a pharmaceutical
CC   composition comprising the immunostimulatory nucleic acid and a carrier;
CC   and (2) treating an allergic condition. (I) has antiallergic activity and
CC   can be used in gene therapy. (I) can be used for preparing a composition
CC   for treating a variety of immune related disorders such as cancer,
CC   infectious diseases and allergic disorders. (I) also stimulates the
CC   activation of natural killer cells and the production of type 1
CC   interferon (IFN). The present sequence represents an immunostimulatory
CC   oligonucleotide, which is used in an example from the present invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 155
ACC59006/c
ID   ACC59006 standard; DNA; 18 BP.
XX
AC   ACC59006;
XX
DT   01-JUL-2003  (first entry)
XX
DE   Human bcl-2 antisense oligonucleotide.
XX
KW   Human; antisense; transcobalamin receptor; intrinsic factor receptor;
KW   cytostatic; antiviral; anti-HIV; hepatotropic; antiinflammatory;
KW   virucide; tuberculostatic; protozoacide; cancer; viral disease; ss;
KW   bcl-2.
XX
OS   Homo sapiens.
XX
PN   WO2003025139-A2.
XX
PD   27-MAR-2003.
XX
PF   17-SEP-2002; 2002WO-US029571.
XX
PR   17-SEP-2001; 2001US-0322821P.
PR   13-SEP-2002; 2002US-0410627P.
XX
PA   (MAYO-) MAYO FOUND MEDICAL EDUCATION & RES.
XX
PI   Collins DA,  Callstrom M,  Prendergast FG;
XX
DR   WPI; 2003-430085/40.
XX
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```
PT   Compound useful for treating e.g. cancer comprises optionally stabilized
PT   nucleic acid, aptamer, antisense sequence, or antisense mimic conjugated
PT   to a ligand for the transcobalamin receptor or intrinsic factor receptor.
XX
PS   Disclosure; Page 87; 156pp; English.
XX
CC   The invention relates to a novel compound comprising an optionally
CC   stabilised nucleic acid or its analogue encoding a peptide, protein or
CC   other biological modifier, aptamer, antisense sequence, or antisense
CC   mimic conjugated directly or through a linker to a ligand for the
CC   transcobalamin receptor or intrinsic factor receptor. A compound of the
CC   invention has cytostatic, antiviral, anti-HIV, hepatotropic,
CC   antiinflammatory, virucide, tuberculostatic, and protozoacide activity.
CC   The compounds may be useful in the manufacture of a medicament for the
CC   delivery of material that affects gene translation or gene transcription
CC   and modulates a biological process, in medical therapy. A compound is
CC   also useful for treating cancer, viral diseases such as infection caused
CC   by HIV, hepatitis (hepatitis B, hepatitis C and hepatitis D), herpes, TB,
CC   Epstein-Barr virus, malaria, influenza virus, Para influenza virus, mumps
CC   virus, adenoviruses, reoviruses, respiratory syncytial virus,
CC   rhinoviruses, polioviruses, coxsackie-viruses, echoviruses,
CC   enteroviruses, gastroenteritis viruses, rubella viruses, rubella virus,
CC   molluscum vontagiosum virus, human parvovirus B19, cytomegalovirus, human
CC   papillomavirus, varicella zoster, arenaviruses or filoviruses. The
CC   present sequence is used in the exemplification of the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 156
ABX89852/c
ID   ABX89852 standard; DNA; 18 BP.
XX
AC   ABX89852;
XX
DT   30-APR-2003  (first entry)
XX
DE   Cancer medicament related immunostimulatory nucleic acid #51.
XX
KW   Immunostimulatory nucleic acid; cancer; cancer vaccine; hormone therapy;
KW   bone cancer; brain cancer; central nervous system cancer; CNS cancer;
KW   connective tissue cancer; oesophageal cancer; eye cancer;
KW   Hodgkin's lymphoma; larynx cancer; oral cavity cancer; skin cancer;
KW   testicular cancer; allergic response; blood transfusion; infection; ss.
XX
OS   Unidentified.
XX
PN   US2002156033-A1.
XX
PD   24-OCT-2002.
XX
PF   05-MAR-2001; 2001US-00800266.
XX
PR   03-MAR-2000; 2000US-0187214P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
XX
PI   Bratzler RL,  Petersen DM;
XX
DR   WPI; 2003-275279/27.
XX
PT   Treatment of a subject having, or at risk of developing cancer, involves
PT   the use of an immunostimulatory nucleic acid having a modified backbone
PT   in combination with a cancer medicament.
XX
PS   Disclosure; Page 6; 32pp; English.
XX
CC   The invention describes a method of treating (T1) a subject having cancer
CC   involving administering an immunostimulatory nucleic acid (1) having
CC   modified backbone and a cancer medicament (M1) selected from
CC   chemotherapeutic agent, immunotherapeutic agent, cancer vaccine or
CC   hormone therapy. The poly-G nucleic acid is not conjugated to (M1) and is
CC   free of CpG and T-rich motifs. The composition is for the treatment of
CC   cancer (e.g. bone cancer, brain and CNS cancer, connective tissue cancer,
CC   oesophageal cancer, eye cancer, Hodgkin's lymphoma, larynx cancer, oral
CC   cavity cancer, skin cancer, and testicular cancer), and for preventing
CC   allergic responses in those receiving blood transfusions. It is also
CC   useful for the treatment of fungal, bacterial, parasitic and viral
CC   infections. The combination of the immunostimulatory nucleic acids and
CC   the cancer medicament is synergistic. The combination allows for the
CC   administration of higher doses of cancer medicaments without as many side
CC   effects, and allows for the administration of lower, sub-therapeutic
CC   doses of either compound, but with higher efficacy than would otherwise
CC   be achieved using such low doses. The immunostimulatory nucleic acids
CC   function by enhancement of anti-body dependent cell cytotoxicity. This
CC   mechanism provides long lasting effects of nucleic acids, thus reducing
CC   dosing regimens, improving compliance and maintenance therapy, reducing
CC   emergency situations and improving quality of life. This sequence
CC   represents an immunostimulatory nucleic acid used in the method of
CC   treating cancer described in the invention
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 157
ABZ22867/c
ID   ABZ22867 standard; DNA; 18 BP.
XX
AC   ABZ22867;
XX
DT   07-APR-2003  (first entry)
XX
DE   Phosphorothioate modified internucleotide linkage oligonucleotide 2.
XX
KW   Phosphorothioate; locked nucleic acid; LNA; immunostimulatory;
KW   cytostatic; antimicrobial; gene therapy; pathogenic infection; cancer;
KW   ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .18
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "phosphorothioate linkages"
XX
PN   WO2002102825-A2.
XX
PD   27-DEC-2002.
XX
PF   14-JUN-2002; 2002WO-GB002728.
XX
PR   15-JUN-2001; 2001GB-00014719.
XX
PA   (GLAX ) GLAXO GROUP LTD.
XX
PI   Catchpole IR;
XX
DR   WPI; 2003-157022/15.
```

XX
PT Novel locked nucleic acid conjugate useful in manufacturing a medicament
PT for treating or preventing pathogenic infections or cancer, has an
PT oligonucleotide having locked nucleic acid based on a functional moiety.
XX
PS Disclosure; Page 8; 101pp; English.
XX
CC The present invention describes a locked nucleic acid (LNA) conjugate (I)
CC comprising an oligonucleotide having at least one locked nucleic acid
CC based on a functional moiety. Also described: (1) a complex (II)
CC comprising (I) and a DNA sequence having a complementary sequence to the
CC oligonucleotide, and encoding a gene under the control of a promoter; (2)
CC a pharmaceutical composition (III) comprising (II) and a carrier or
CC diluent; (3) a device loaded with (III); and (4) an oligonucleotide (IV)
CC comprising a first region comprising an oligonucleotide sequence having
CC at least one LNA, and a second region comprising an immunostimulatory
CC oligonucleotide region containing at least one unmethylated CG di-
CC nucleotide motif. (I) has cytostatic and antimicrobial activities, and
CC can be used in gene therapy. (I) and (II) can be used in medicine, and in
CC the manufacture of a medicament for the treatment or the prevention of
CC pathogenic infections or cancer. (I) is useful for the preparation of
CC (III), by hybridising (I) with a plasmid capable of expressing a gene
CC encoding an antigen or therapeutic protein, and formulating the resulting
CC complex with a pharmaceutical carrier. The present sequence represents a
CC phosphorothioate oligonucleotide, which is given in the exemplification
CC of the present invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 158
ACA92708/c
ID ACA92708 standard; DNA; 18 BP.
XX
AC ACA92708;
XX
DT 16-JUL-2003 (first entry)
XX
DE Immunostimulatory CpG oligonucleotide #51.
XX
KW Immunostimulatory oligonucleotide; CpG; ss; vaccine; virucide;
KW immunostimulant; cytostatic; antibacterial; fungicide; viral shedding;
KW oil-in-water emulsion; viral infection; cancer; bone cancer;
KW brain cancer; central nervous system cancer; CNS; eye cancer;
KW connective tissue cancer; oesophageal cancer; Hodgkin's lymphoma;
KW larynx cancer; oral cavity cancer; skin cancer; testicular cancer;
KW bacterial infection; meningitis; HIV infection; AIDS; fungal infection;
KW candidiasis.
XX
OS Synthetic.
XX
PN WO2003030934-A2.
XX
PD 17-APR-2003.
XX
PF 07-OCT-2002; 2002WO-EP011206.
XX
PR 06-OCT-2001; 2001US-0327734P.
XX
PA (QIAG-) QIAGEN GMBH.
PA (UYSA-) UNIV SASKATCHEWAN.
XX
PI Babiuk LA, Hecker R;
XX
DR WPI; 2003-381683/36.

XX
PT New compositions comprising an immunostimulatory nucleic acid and an oil-
PT in-water emulsion, useful for reducing viral shedding or tissue damage
PT upon vaccination, or for inducing an immune response against infectious
PT diseases.
XX
PS Claim 35; Page 33; 68pp; English.
XX
CC The invention relates to a composition comprising an immunostimulatory
CC nucleic acid (especially a CpG dinucleotide containing oligonucleotide)
CC and an oil-in-water emulsion. Also included are reducing viral shedding
CC in a non-human animal (by administering to a non-human animal infected
CC with a virus or at risk of viral infection, an immunostimulatory nucleic
CC acid and an oil-in-water emulsion), reducing tissue damage upon
CC vaccination of a subject by administering to a subject by an invasive
CC route an adjuvanted vaccine and an immunostimulatory nucleic acid to
CC reduce tissue damage arising from the adjuvanted vaccine, where the
CC vaccine is adjuvanted with an oil-in-water emulsion), inducing an immune
CC response (by administering to a subject an oil-in-water emulsion and a
CC CpG oligonucleotide to produce the immune response) and reducing a dosage
CC of antigen administered to a subject to produce an antigen specific
CC immune response comprising administering to a subject an antigen in a sub
CC -therapeutic dosage and an immunostimulatory nucleic acid. The
CC composition is useful for reducing viral shedding in a non-human animal
CC infected with a virus or at risk of viral infection, for reducing tissue
CC damage upon vaccination, for inducing an immune response to treat or
CC prevent infectious diseases, for reducing a dosage of antigen
CC administered to a subject to produce an antigen specific immune response,
CC and for treating or preventing cancer (e.g. bone cancer, brain and CNS
CC (central nervous system) cancer, connective tissue cancer, oesophageal
CC cancer, eye cancer, Hodgkin's lymphoma, larynx cancer, oral cavity
CC cancer, skin cancer, or testicular cancer), bacterial (e.g. meningitis),
CC viral (e.g. HIV infection leading to AIDS) and fungal (e.g. candidiasis)
CC infections. The present sequence is an immunostimulatory oligonucleotide
CC of the invention
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 159
ACD99315/c
ID ACD99315 standard; DNA; 18 BP.
XX
AC ACD99315;
XX
DT 25-SEP-2003 (first entry)
XX
DE Immunostimulatory nucleic acid #1.
XX
KW Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS Synthetic.
XX
PN US2003050268-A1.
XX
PD 13-MAR-2003.
XX
PF 29-MAR-2002; 2002US-00112653.
XX
PR 29-MAR-2001; 2001US-0279642P.
XX
PA (KRIE/) KRIEG A M.

PA (BERG/) BERG D J.
XX
PI Krieg AM, Berg DJ;
XX
DR WPI; 2003-521815/49.
XX
PT Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT disease by administering an immunostimulatory nucleic acid.
XX
PS Disclosure; Page 8; 229pp; English.
XX
CC The invention describes a method of treating non-allergic inflammatory
CC disease comprising administering to a subject having or at risk of
CC developing a non-allergic inflammatory disease an immunostimulatory
CC nucleic acid for prevention or treatment of the disease. The method is
CC useful for treating non-allergic inflammatory diseases, such as
CC psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC This sequence represents an immunostimulatory nucleic acid
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 160
ACD99399/c
ID ACD99399 standard; DNA; 18 BP.
XX
AC ACD99399;
XX
DT 25-SEP-2003 (first entry)
XX
DE Immunostimulatory nucleic acid #85.
XX
KW Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS Synthetic.
XX
PN US2003050268-A1.
XX
PD 13-MAR-2003.
XX
PF 29-MAR-2002; 2002US-00112653.
XX
PR 29-MAR-2001; 2001US-0279642P.
XX
PA (KRIE/) KRIEG A M.
PA (BERG/) BERG D J.
XX
PI Krieg AM, Berg DJ;
XX
DR WPI; 2003-521815/49.
XX
PT Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT disease by administering an immunostimulatory nucleic acid.
XX
PS Disclosure; Page 10; 229pp; English.
XX
CC The invention describes a method of treating non-allergic inflammatory
CC disease comprising administering to a subject having or at risk of
CC developing a non-allergic inflammatory disease an immunostimulatory
CC nucleic acid for prevention or treatment of the disease. The method is
CC useful for treating non-allergic inflammatory diseases, such as
CC psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC This sequence represents an immunostimulatory nucleic acid
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 161
ACC58501/c
ID ACC58501 standard; DNA; 18 BP.
XX
AC ACC58501;
XX
DT 26-AUG-2003 (first entry)
XX
DE Oligonucleotide ODN #9 (INX-G3139).
XX
KW Lipid nucleic acid; LNA; mucosal; vaccine; immunostimulant; ss.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT modified_base 1. .18
FT /*tag= a
FT /mod_base= OTHER
FT /note= "OTHER= optional phosphorothioate nucleotides"
XX
PN WO2003039595-A2.
XX
PD 15-MAY-2003.
XX
PF 07-NOV-2002; 2002WO-CA001717.
XX
PR 07-NOV-2001; 2001US-0337522P.
PR 10-MAY-2002; 2002US-0379343P.
XX
PA (INEX-) INEX PHARM CORP.
XX
PI Semple S, Klimuk S, Yuan Z;
XX
DR WPI; 2003-493235/46.
XX
PT Improved mucosal adjuvant useful in the preparation of vaccine for
PT stimulating an immune response comprises a lipid-nucleic acid formulation
PT containing a nucleic acid component encapsulated by a lipid.
XX
PS Claim 12; Page 20; 71pp; English.
XX
CC The present sequence is that of CpG oligodeoxynucleotide ODN #9 (INX-
CC G3139), which is an example of an ODN that can be used in lipid-nucleic
CC acid (LNA) formulations of the invention comprising a lipid component and
CC a nucleic acid component. The invention is based on the discovery that
CC such LNA formulations associated with a target antigen stimulate enhanced
CC mucosal immune responses, especially IgA production, directed to that
CC target antigen in vivo as compared to the target antigen alone or mixed
CC with free or unencapsulated forms of the ODN. Claimed improved mucosal
CC vaccines comprise an LNA formulation with at least one antigen, the LNA
CC formulation comprising a lipid component that encapsulates the nucleic
CC acid component, with the lipid and nucleic acid components acting
CC synergistically to stimulate antigen-specific IgG production in a mammal
XX
SQ Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

```
  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 162
ACC58516/c
ID   ACC58516 standard; DNA; 18 BP.
XX
AC   ACC58516;
XX
DT   26-AUG-2003  (first entry)
XX
DE   Oligonucleotide ODN #24 (hBcl-2).
XX
KW   Lipid nucleic acid; LNA; mucosal; vaccine; immunostimulant; human; Bcl-2;
KW   ss.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .18
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "OTHER= optional phosphorothioate nucleotides"
XX
PN   WO2003039595-A2.
XX
PD   15-MAY-2003.
XX
PF   07-NOV-2002; 2002WO-CA001717.
XX
PR   07-NOV-2001; 2001US-0337522P.
PR   10-MAY-2002; 2002US-0379343P.
XX
PA   (INEX-) INEX PHARM CORP.
XX
PI   Semple S,  Klimuk S,  Yuan Z;
XX
DR   WPI; 2003-493235/46.
XX
PT   Improved mucosal adjuvant useful in the preparation of vaccine for
PT   stimulating an immune response comprises a lipid-nucleic acid formulation
PT   containing a nucleic acid component encapsulated by a lipid.
XX
PS   Disclosure; Page 21; 71pp; English.
XX
CC   The present sequence is that of oligodeoxynucleotide ODN #24 (hBcl-2) for
CC   human Bcl-2. It is an example of an ODN that can be used in lipid-nucleic
CC   acid (LNA) formulations of the invention comprising a lipid component and
CC   a nucleic acid component. The invention is based on the discovery that
CC   such LNA formulations associated with a target antigen stimulate enhanced
CC   mucosal immune responses, especially IgA production, directed to that
CC   target antigen in vivo as compared to the target antigen alone or mixed
CC   with free or unencapsulated forms of the ODN. Claimed improved mucosal
CC   vaccines comprise an LNA formulation with at least one antigen, the LNA
CC   formulation comprising a lipid component that encapsulates the nucleic
CC   acid component, with the lipid and nucleic acid components acting
CC   synergistically to stimulate antigen-specific IgG production in a mammal
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 163
ADA24232/c
ID   ADA24232 standard; DNA; 18 BP.
XX
AC   ADA24232;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human bcl-2 antisense oligonucleotide SEQ ID NO:15.
XX
KW   therapeutic oligonucleotide; double-stranded RNA; dsRNA; mobile protein;
KW   cytostatic; immunosuppressive; virucide; anti-HIV; antibacterial;
KW   cardiant; hyperproliferation; cancer; haematological; metastatic;
KW   autoimmune disease; infection; endocrine; neural; cardiovascular;
KW   pulmonary; reproductive system disorder; endocytosis; metabolic process;
KW   murine; intracellular adhesion molecule 1; ICAM-1;
KW   antisense oligonucleotide; phosphorothioate; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   modified_base   1. .18
FT                   /*tag=  a
FT                   /mod_base= OTHER
FT                   /note= "optionally phosphorothioate backbone"
XX
PN   WO2003069306-A2.
XX
PD   21-AUG-2003.
XX
PF   13-FEB-2003; 2003WO-US004323.
XX
PR   13-FEB-2002; 2002US-0356053P.
XX
PA   (MEDB-) MEDBRIDGE INC.
XX
PI   Xie D;
XX
DR   WPI; 2003-646491/61.
XX
PT   Treating diseases with oligonucleotides or interfering RNA, useful e.g.
PT   for cancer or autoimmune diseases, covalently coupled to mobile proteins,
PT   in vivo or in vitro.
XX
PS   Claim 128; Page 12; 42pp; English.
XX
CC   The present invention describes a method for treating a disease by
CC   administering: (a) a therapeutic oligonucleotide (TON) or double-stranded
CC   RNA (dsRNA) that includes a reactive group (RG) that can react with a
CC   mobile protein (MP) to form a covalent conjugate of TON/dsRNA and MP; or
CC   (b) TON or dsRNA already conjugated to MP through a covalent bond. Also
CC   described: (1) TON of 15-30 bases that includes (i) a part that binds to
CC   target RNA or DNA and (ii) RG; (2) TON of 15-30 bases that includes a
CC   part that binds to target RNA or DNA and is conjugated to MP through a
CC   covalent link; (3) dsRNA that includes RG; and (4) dsRNA that is
CC   conjugated to MP through a covalent link. TON have cytostatic,
CC   immunosuppressive, virucide, anti-HIV, antibacterial and cardiant
CC   activities. The method is used to treat, or prevent, hyperproliferation
CC   (particularly cancers, solid or haematological, including prevention of
CC   metastatic spread); autoimmune diseases; viral or bacterial infections;
CC   endocrine, neural, cardiovascular, pulmonary or reproductive system
CC   disorders. Also where TON or dsRNA are labelled, they can be used for
CC   diagnosis and monitoring of therapy. When linked to a mobile protein,
CC   TON/dsRNA have better cell entry (via endocytosis or other parts of the
CC   mobile protein metabolic process) and longer therapeutic life, increased
CC   from hours to weeks (the result of increased resistance to nuclease),
CC   without loss of affinity for the target. In many cases immune response to
CC   TON/dsRNA is also reduced, as is non-specific binding to endogenous
CC   proteins. The present sequence represents a human bcl-2 antisense
CC   oligonucleotide, which is a specifically claimed TON from the present
```

```
CC   invention.
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 164
ADB36468/c
ID   ADB36468 standard; DNA; 18 BP.
XX
AC   ADB36468;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #82.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 6; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 165
ADB36431/c
ID   ADB36431 standard; DNA; 18 BP.
XX
AC   ADB36431;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #45.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 6; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 166
ADB36432/c
ID   ADB36432 standard; DNA; 18 BP.
XX
AC   ADB36432;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #46.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
```

```
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 6; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 167
ADB36387/c
ID   ADB36387 standard; DNA; 18 BP.
XX
AC   ADB36387;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #1.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 5; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 168
ADB54074
ID   ADB54074 standard; DNA; 18 BP.
XX
AC   ADB54074;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Oligonucleotide 66 used to analyse CpG positions within genomic DNA.
XX
KW   colon cell proliferative disorder; non methylated CpG dinucleotide;
KW   cytostatic; cancer; adenoma; carcinoma; cytosine methylation state; ss.
XX
OS   Unidentified.
XX
PN   WO2003072821-A2.
XX
PD   04-SEP-2003.
XX
PF   27-FEB-2003; 2003WO-EP002035.
XX
PR   27-FEB-2002; 2002EP-00004551.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Adorjan P,  Burger M,  Maier S,  Nimmrich I,  Becker E,  Lesche R;
PI   Rujan T,  Schmitt A;
XX
DR   WPI; 2003-731620/69.
XX
PT   Detecting and differentiating between colon cell proliferative disorders
PT   associated with a gene or its regulatory regions comprises contacting a
PT   target nucleic acid in a biological sample obtained from the subject with
PT   a reagent.
XX
PS   Claim 43; SEQ ID NO 130; 74pp; English.
XX
CC   The invention relates to a novel method for detecting and differentiating
CC   between colon cell proliferative disorders associated with at least one
CC   gene or its regulatory regions. The method comprises contacting a target
CC   nucleic acid in a biological sample obtained from the subject with at
CC   least one reagent or a series of reagents, where the reagent or series of
CC   reagents, distinguishes between methylated and non methylated CpG
CC   dinucleotides within the target nucleic acid. The molecules of the
CC   invention demonstrate cytostatic activity whilst the method may useful
CC   for detecting and differentiating between colon cell proliferative
CC   disorders, including cancers such as colon adenoma and colon carcinoma.
CC   The PNA (peptide nucleic acid)-oligomers are useful as probes for
CC   determining cytosine methylation state or single nucleotide
CC   polymorphisms. The current sequence is that of the oligonucleotide of the
CC   invention which was used to analyse the CpG positions within the genomic
CC   DNA regions. This sequence is not shown within the specification but is
CC   taken from Wipoweb.
XX
SQ   Sequence 18 BP; 2 A; 4 C; 7 G; 5 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        387 CTTTGCCACGGTGGTGGA 404
              ||||||||||||||||||
Db          1 CTTTGCCACGGTGGTGGA 18
```

```
RESULT 169
ADC24658/c
ID   ADC24658 standard; DNA; 18 BP.
XX
AC   ADC24658;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Antisense DNA #6 that can be conjugated to the carriers of invention.
XX
KW   cobalamin-bound detectable; radioimaging; infectious disease;
KW   cardiovascular disorder; antibiotic; antiviral agent; ss.
XX
OS   Synthetic.
XX
PN   WO2003026674-A1.
XX
PD   03-APR-2003.
XX
PF   30-SEP-2002; 2002WO-US031038.
XX
PR   28-SEP-2001; 2001US-0326183P.
XX
PA   (MAYO-) MAYO FOUND MEDICAL EDUCATION & RES.
XX
PI   Collins DA;
XX
DR   WPI; 2003-393314/37.
XX
PT   Composition useful for the treatment of e.g. infectious disease,
PT   comprises a cobalamin-bound detectable or therapeutic agent in
PT   combination with a cobalamin transport protein.
XX
PS   Example 4; SEQ ID NO 6; 97pp; English.
XX
CC   The present invention relates to a cobalamin-bound detectable or
CC   therapeutic agent in combination with a cobalamin transport protein. In
CC   the manufacture of a medicament to increase the uptake of detectable
CC   agent useful in radioimaging or therapeutic agent for treatment of a
CC   disorder associated with abnormal cellular proliferation, an infectious
CC   disease and cardiovascular disorder; as an antibiotic or antiviral agent;
CC   for transcription of al factor. The method increases efficiency of
CC   vitamin B12 or vitamin B12 conjugated materials. The presents sequence
CC   represents an antisense nucleotide that can be conjugated to the carriers
CC   described in the present invention.
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 170
ADC33583/c
ID   ADC33583 standard; DNA; 18 BP.
XX
AC   ADC33583;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Human bcl2 antisense oligonucleotide seq id 6.
XX
KW   cytostatic; gene therapy; protein kinase C alpha expression inhibitor;
KW   protamine-NLS peptide; cancer; bladder cancer; antisense oligonucleotide;
KW   bcl2; ss; human.
XX
OS   Homo sapiens.
XX
PN   US2003087810-A1.
XX
PD   08-MAY-2003.
XX
PF   02-NOV-2001; 2001US-00002884.
XX
PR   02-NOV-2001; 2001US-00002884.
XX
PA   (STEI/) STEIN C A.
PA   (BENI/) BENIMETSKAYA L.
PA   (GUZZ/) GUZZO-PERNELL N.
XX
PI   Stein CA,  Benimetskaya L,  Guzzo-Pernell N;
XX
DR   WPI; 2003-730068/69.
XX
PT   New peptide delivering antisense oligonucleotides that down-regulate
PT   protein expression in cells, useful for treating cancer, particularly
PT   bladder cancer.
XX
PS   Claim 23; SEQ ID NO 6; 18pp; English.
XX
CC   The invention describes a peptide (I) comprising consecutive amino acids,
CC   the sequence of which is from any of 2 protamine-NLS peptides sequences,
CC   not given in the specification. The pharmaceutical compositions can be
CC   administered orally, topically, buccally, pulmonarily, intramuscularly,
CC   intraperitoneally, intravenously, subcutaneously, by inhalation and
CC   transdermally. The methods and compositions of the present invention are
CC   useful for treating cancer, particularly bladder cancer. The method
CC   provides effective non-lipidic delivery of antisense oligonucleotides.
CC   This sequence represents a human bcl2 antisense oligonucleotide that can
CC   be delivered to a cell by conjugation to a peptide of the invention.
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 171
AAD60214/c
ID   AAD60214 standard; DNA; 18 BP.
XX
AC   AAD60214;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Oligonucleotide 1758 used for activating dendritic cells.
XX
KW   Dendritic cell activation; cancer immunotherapy; infectious disease;
KW   allergy; cell therapy; ss.
XX
OS   Unidentified.
XX
PN   US2003100527-A1.
XX
PD   29-MAY-2003.
XX
PF   03-JUN-2002; 2002US-00161229.
XX
PR   15-JUL-1994;   94US-00276358.
PR   07-FEB-1995;   95US-00386063.
PR   30-OCT-1996;   96US-00738652.
PR   30-OCT-1997;   97US-00960774.
PR   13-NOV-1998;   98US-00191170.
XX
```

```
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Krieg AM,  Hartmann G;
XX
DR   WPI; 2003-708674/67.
XX
PT   Activating a dendritic cell useful for treating cancer, infectious
PT   diseases or allergies, comprises contacting the dendritic cell with an
PT   amount of an isolated nucleic acid that contains at least one
PT   unmethylated CpG dinucleotide.
XX
PS   Example 6; Page 18; 51pp; English.
XX
CC   The invention relates to a method of activating a dendritic cell. The
CC   method involves contacting the dendritic cell with an isolated nucleic
CC   acid containing at least one unmethylated CpG dinucleotide, where the
CC   nucleic acid is about 8-80 bases in length, in an amount that activates
CC   the dendritic cell. The compositions and methods of the invention are
CC   useful for cancer immunotherapy, or for treating an infectious disease
CC   (e.g. viral, bacterial or fungal infections) or allergy. The invention is
CC   useful in cell therapy. The present sequence is an oligonucleotide used
CC   for activating dendritic cells
XX
SQ   Sequence 18 BP; 2 A; 8 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 172
AAL40451
ID   AAL40451 standard; mRNA; 19 BP.
XX
AC   AAL40451;
XX
DT   19-SEP-2002  (first entry)
XX
DE   Maxizyme related Bcl-2 mRNA sequence.
XX
KW   Enzyme; modifiable RNA cleavage activity; maxizyme-constituting RNA;
KW   trans maxizyme; Bcl-2; ss.
XX
OS   Unidentified.
XX
FH   Key             Location/Qualifiers
FT   misc_binding    1. .9
FT                   /*tag=  a
FT                   /bound_moiety= "WtRz_RNA"
FT                   /note= "Forms a double-stranded region with nucleotides
FT                   40-32 of sequence AAL40455"
FT   misc_binding    1. .9
FT                   /*tag=  c
FT                   /bound_moiety= "T-MzL_RNA"
FT                   /note= "Forms a double-stranded region with nucleotides
FT                   27-19 of sequence AAL40447"
FT   misc_binding    1. .9
FT                   /*tag=  e
FT                   /bound_moiety= "B-Mzl_RNA"
FT                   /note= "Forms a double-stranded region with nucleotides
FT                   29-21 of sequence AAL40449"
FT   misc_binding    11. .19
FT                   /*tag=  b
FT                   /bound_moiety= "WtRz_RNA"
FT                   /note= "Forms a double-stranded region with nucleotides 9
FT                   -1 of sequence AAL40455"
FT   misc_binding    11. .19
FT                   /*tag=  d
FT                   /bound_moiety= "T-MzR_RNA"
FT                   /note= "Forms a double-stranded region with nucleotides 9
FT                   -1 of sequence AAL40456"
FT   misc_binding    11. .19
FT                   /*tag=  f
FT                   /bound_moiety= "B-MzR_RNA"
FT                   /note= "Forms a double-stranded region with nucleotides 9
FT                   -1 of sequence AAL40448"
XX
PN   JP2002119283-A.
XX
PD   23-APR-2002.
XX
PF   13-OCT-2000; 2000JP-00313320.
XX
PR   13-OCT-2000; 2000JP-00313320.
XX
PA   (DOKU-) DOKURITSU GYOSEI HOJIN SANGYO GIJUTSU SO.
XX
DR   WPI; 2002-483792/52.
XX
PT   A nucleic acid enzyme which has selective and effective eradicating
PT   activity towards harmful cells by acquiring cleavage activity of a
PT   specific target RNA by recognition of the other RNA molecule.
XX
PS   Disclosure; Fig 3; 17pp; Japanese.
XX
CC   The invention relates to a nucleic acid enzyme with modifiable RNA
CC   cleavage activity. More specifically the invention relates to a nucleic
CC   acid enzyme, trans maxizyme, which has selective and effective
CC   eradicating activity towards harmful cells by acquiring cleavage activity
CC   of a specific target RNA by recognition of the other RNA molecule. The
CC   enzyme of the invention is useful for cleaving target RNA and is useful
CC   in treating diseases caused by the target RNA. This polynucleotide
CC   sequence represents the maxizyme related Bcl-2 mRNA sequence relating to
CC   the invention
XX
SQ   Sequence 19 BP; 3 A; 8 C; 7 G; 0 T; 1 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 19;
  Best Local Similarity   94.4%;  Pred. No. 85;
  Matches   17;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        190 GACCCGGTCGCCAGGACC 207
              |||||||:||||||||||
Db          2 GACCCGGUCGCCAGGACC 19


RESULT 173
AAV74246/c
ID   AAV74246 standard; DNA; 20 BP.
XX
AC   AAV74246;
XX
DT   20-MAR-2003  (revised)
DT   15-MAR-1999  (first entry)
XX
DE   CpG-N motif SOS-ODN 1844 DNA.
XX
KW   CpG-N motif; immunostimulation; antigen; CpG-S motif; immunisation; ODN;
KW   viral antigen; bacterial antigen; parasite; therapeutic; growth factor;
KW   toxin; tumour suppressor; cytokine; apoptotic protein; interferon;
KW   hormone; clotting factor; ligand; receptor; oligodeoxynucleotide; ss.
XX
OS   Synthetic.
XX
PN   WO9852581-A1.
XX
PD   26-NOV-1998.
XX
PF   20-MAY-1998;   98WO-US010408.
XX
PR   20-MAY-1997;   97US-0047209P.
PR   20-MAY-1997;   97US-0047233P.
```

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XX
PA   (OTTA-) OTTAWA CIVIC HOSPITAL LOEB RES INST.
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (QIAG-) QIAGEN GMBH.
XX
PI   Davis HL,  Krieg AM,  Schorr J,  Wu T;
XX
DR   WPI; 1999-059712/05.
XX
PT   Use of neutralising CpG and stimulating CpG motifs in DNA vectors - for
PT   enhancing the immunostimulatory effect of an antigen or enhancing the
PT   expression of a therapeutic polypeptide.
XX
PS   Example 1; Page 64; 109pp; English.
XX
CC   AAV74237-V74253 are oligodeoxynucleotide (ODN) primers used to describe a
CC   method for enhancing the immunostimulatory effect of an antigen encoded
CC   by nucleic acid contained in a nucleic acid construct. The method
CC   involves determining the CpG-N and CpG-S motifs present in the construct,
CC   removing neutralising CpG (CpG-N) motifs and optionally inserting
CC   stimulatory CpG (CpG-S) motifs in the construct, thereby producing a
CC   nucleic acid construct having enhanced immunostimulatory efficacy. The
CC   method can be used for immunisation against viral antigens, e.g. from
CC   hepatitis B virus (HBV), bacterial antigens or an antigen derived from a
CC   parasite. They can also be used for expression of a therapeutic
CC   polypeptide, e.g. growth factors, toxins, tumour suppressors, cytokines,
CC   apoptotic proteins, interferons, hormones, clotting factors, ligands and
CC   receptors. (Updated on 20-MAR-2003 to correct PA field.)
XX
SQ   Sequence 20 BP; 3 A; 8 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 91;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 174
AAC65049/c
ID   AAC65049 standard; DNA; 20 BP.
XX
AC   AAC65049;
XX
DT   12-FEB-2001  (first entry)
XX
DE   Human bcl genes antisense sequence #2.
XX
KW   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
KW   protein kinase C; PKC; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061810-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009293.
XX
PR   08-APR-1999;   99US-0128377P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD,  Riley TA;
XX
DR   WPI; 2000-679502/66.
XX
PT   Antisense oligonucleotides containing degenerate and/or universal bases,
PT   and modified backbone linkages is useful to target therapeutic genes,
PT   preferably anti-apoptosis or chemoresistance genes.
XX
PS   Example 5; Fig 1; 32pp; English.
XX
CC   The present invention is concerned with antisense oligonucleotides
CC   containing a number of degenerate bases and with a modified backbone
CC   which can be used to direct cleavage of target RNA molecules. The use of
CC   degenerate bases reduces the risk of immune activation following
CC   injection into animals, which causes deleterious side effects associated
CC   with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC   C65077 are antisense oligonucleotides and PCR primers used in assays to
CC   demonstrate the effects of the sequences of the invention
XX
SQ   Sequence 20 BP; 1 A; 9 C; 4 G; 4 T; 0 U; 2 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   90.0%;  Pred. No. 91;
  Matches   18;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        567 CCAGGATAACGGAGGCTGGG 586
              |||||| ||||| |||||||
Db         20 CCAGGANAACGGNGGCTGGG 1


RESULT 175
AAC65048/c
ID   AAC65048 standard; DNA; 20 BP.
XX
AC   AAC65048;
XX
DT   12-FEB-2001  (first entry)
XX
DE   Human bcl genes antisense sequence #1.
XX
KW   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
KW   protein kinase C; PKC; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061810-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009293.
XX
PR   08-APR-1999;   99US-0128377P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD,  Riley TA;
XX
DR   WPI; 2000-679502/66.
XX
PT   Antisense oligonucleotides containing degenerate and/or universal bases,
PT   and modified backbone linkages is useful to target therapeutic genes,
PT   preferably anti-apoptosis or chemoresistance genes.
XX
PS   Example 5; Fig 1; 32pp; English.
XX
CC   The present invention is concerned with antisense oligonucleotides
CC   containing a number of degenerate bases and with a modified backbone
CC   which can be used to direct cleavage of target RNA molecules. The use of
CC   degenerate bases reduces the risk of immune activation following
CC   injection into animals, which causes deleterious side effects associated
CC   with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC   C65077 are antisense oligonucleotides and PCR primers used in assays to
CC   demonstrate the effects of the sequences of the invention
XX
SQ   Sequence 20 BP; 2 A; 8 C; 3 G; 5 T; 0 U; 2 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   90.0%;  Pred. No. 91;
  Matches   18;  Conservative    0;  Mismatches    2;  Indels    0;  Gaps    0;

Qy        562 TGGATCCAGGATAACGGAGG 581
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                  ||||||||||| ||||| ||
Db          20 TGGATCCAGGANAACGGNGG 1


RESULT 176
AAF98962/c
ID   AAF98962 standard; DNA; 20 BP.
XX
AC   AAF98962;
XX
DT   12-JUN-2001  (first entry)
XX
DE   Immunostimulatory nucleic acid #78.
XX
KW   Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW   immunostimulatory; tumour; viral infection; bacterial infection;
KW   fungal infection; parasitic infection; cancer; asthma;
KW   infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS   Synthetic.
XX
PN   WO200122972-A2.
XX
PD   05-APR-2001.
XX
PF   25-SEP-2000; 2000WO-US026383.
XX
PR   25-SEP-1999;   99US-0156113P.
PR   27-SEP-1999;   99US-0156135P.
PR   23-AUG-2000; 2000US-0227436P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Krieg AM,  Schetter C,  Vollmer J;
XX
DR   WPI; 2001-273485/28.
XX
PT   Vaccinating against tumors, infectious diseases, allergies and asthma
PT   using immunostimulatory Py-rich and TG nucleic acids.
XX
PS   Disclosure; Page 40; 338pp; English.
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 20 BP; 3 A; 8 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 91;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 177
ABS77603/c
ID   ABS77603 standard; DNA; 20 BP.
XX
AC   ABS77603;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Angiogenesis inhibitory oligonucleotide #87.
XX
KW   Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW   tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW   diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW   corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW   rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW   plaque neovascularisation; telangiectasia; haemophiliac joint;
KW   angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW   scleroderma; hypertrophic scar.
XX
OS   Synthetic.
XX
PN   WO200253141-A2.
XX
PD   11-JUL-2002.
XX
PF   14-DEC-2001; 2001WO-US048458.
XX
PR   14-DEC-2000; 2000US-0255534P.
XX
PA   (COLE-) COLEY PHARM GROUP INC.
XX
PI   Bratzler RL;
XX
DR   WPI; 2002-566690/60.
XX
PT   Inhibiting angiogenesis in a subject, involves administering at least one
PT   antiangiogenic nucleic acid molecule to the subject.
XX
PS   Claim 2; Page 21; 276pp; English.
XX
CC   The invention relates to inhibiting angiogenesis in a subject, comprising
CC   administering at least one antiangiogenic nucleic acid molecule. Also
CC   included is a kit comprising a first container housing the antiangiogenic
CC   nucleic acids, and instructions for administering them to a subject
CC   having a condition characterised by unwanted angiogenesis. The method is
CC   useful for inhibiting angiogenesis associated with solid tumour growth,
CC   tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC   diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC   corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC   rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC   neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC   wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC   hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC   acid of the invention
XX
SQ   Sequence 20 BP; 3 A; 8 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 91;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 178
ABL39325/c
ID   ABL39325 standard; DNA; 20 BP.
XX
AC   ABL39325;
XX
DT   16-APR-2002  (first entry)
XX
DE   Immunostimulatory nucleic acid SEQ ID NO: 757.
XX
KW   Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
```

```
KW   angiogenesis; metastasis; cytostatic; ss.
XX
OS   Synthetic.
XX
PN   WO200197843-A2.
XX
PD   27-DEC-2001.
XX
PF   22-JUN-2001; 2001WO-US020154.
XX
PR   22-JUN-2000; 2000US-0213346P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Weiner G,  Hartmann G;
XX
DR   WPI; 2002-154611/20.
XX
PT   Treating or preventing cancer, such as basal cell carcinoma, comprises
PT   administering immunostimulatory nucleic acids that induce expression of
PT   cell surface antigens and antibodies to a subject having or at risk of
PT   developing cancer.
XX
PS   Disclosure; Page 289; 312pp; English.
XX
CC   The present invention relates to methods for treating or preventing
CC   cancer, involving administering to a subject having or at risk of
CC   developing cancer immunostimulatory nucleic acids that induce expression
CC   of cell surface antigens and antibodies. The methods are useful for
CC   treating or preventing cancer such as basal cell carcinoma, bladder
CC   cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC   breast cancer, cervical cancer, colon and rectum cancer, connective
CC   tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
CC   cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC   Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC   cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin
CC   cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC   present sequence is an immunostimulatory oligonucleotide described in the
CC   exemplification of the invention
XX
SQ   Sequence 20 BP; 3 A; 8 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 91;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 179
ACD99395/c
ID   ACD99395 standard; DNA; 20 BP.
XX
AC   ACD99395;
XX
DT   25-SEP-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #81.
XX
KW   Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW   antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW   psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW   inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS   Synthetic.
XX
PN   US2003050268-A1.
XX
PD   13-MAR-2003.
XX
PF   29-MAR-2002; 2002US-00112653.
XX
PR   29-MAR-2001; 2001US-0279642P.
XX
PA   (KRIE/) KRIEG A M.
PA   (BERG/) BERG D J.
XX
PI   Krieg AM,  Berg DJ;
XX
DR   WPI; 2003-521815/49.
XX
PT   Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT   allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT   disease by administering an immunostimulatory nucleic acid.
XX
PS   Disclosure; Page 10; 229pp; English.
XX
CC   The invention describes a method of treating non-allergic inflammatory
CC   disease comprising administering to a subject having or at risk of
CC   developing a non-allergic inflammatory disease an immunostimulatory
CC   nucleic acid for prevention or treatment of the disease. The method is
CC   useful for treating non-allergic inflammatory diseases, such as
CC   psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC   inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC   This sequence represents an immunostimulatory nucleic acid
XX
SQ   Sequence 20 BP; 3 A; 8 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 91;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 180
ADB36464/c
ID   ADB36464 standard; DNA; 20 BP.
XX
AC   ADB36464;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #78.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 6; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
```

```
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 20 BP; 3 A; 8 C; 4 G; 5 T; 0 U; 0 Other;

  Query Match           2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 91;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 181
AAC65067/c
ID   AAC65067 standard; DNA; 18 BP.
XX
AC   AAC65067;
XX
DT   12-FEB-2001  (first entry)
XX
DE   Human bcl genes antisense sequence #11.
XX
KW   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
KW   protein kinase C; PKC; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061810-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009293.
XX
PR   08-APR-1999;   99US-0128377P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD,  Riley TA;
XX
DR   WPI; 2000-679502/66.
XX
PT   Antisense oligonucleotides containing degenerate and/or universal bases,
PT   and modified backbone linkages is useful to target therapeutic genes,
PT   preferably anti-apoptosis or chemoresistance genes.
XX
PS   Example 7; Fig 3; 32pp; English.
XX
CC   The present invention is concerned with antisense oligonucleotides
CC   containing a number of degenerate bases and with a modified backbone
CC   which can be used to direct cleavage of target RNA molecules. The use of
CC   degenerate bases reduces the risk of immune activation following
CC   injection into animals, which causes deleterious side effects associated
CC   with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC   C65077 are antisense oligonucleotides and PCR primers used in assays to
CC   demonstrate the effects of the sequences of the invention
XX
SQ   Sequence 18 BP; 3 A; 4 C; 9 G; 1 T; 0 U; 1 Other;

  Query Match           2.9%;  Score 17.6;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 86;
  Matches   17;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        130 CCCGCACCGGGCATCTTC 147
              |||||:|||||||||||||
Db         18 CCCGCRCCGGGCATCTTC 1


RESULT 182
AAQ51956
ID   AAQ51956 standard; RNA; 17 BP.
XX
AC   AAQ51956;
XX
DT   25-MAR-2003  (revised)
DT   26-MAY-1994  (first entry)
XX
DE   BCL-2 mRNA ribozyme cleavable nucleotide (1742).
XX
KW   Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW   resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW   actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW   adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW   human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW   B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
KW   neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW   hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
XX
OS   Homo sapiens.
XX
PN   WO9323057-A1.
XX
PD   25-NOV-1993.
XX
PF   13-MAY-1993;   93WO-US004573.
XX
PR   14-MAY-1992;   92US-00882822.
PR   14-MAY-1992;   92US-00882885.
PR   26-AUG-1992;   92US-00936110.
PR   26-AUG-1992;   92US-00936421.
PR   26-AUG-1992;   92US-00936422.
PR   26-AUG-1992;   92US-00936531.
PR   26-AUG-1992;   92US-00936532.
PR   07-DEC-1992;   92US-00987131.
PR   19-JAN-1993;   93US-00006122.
PR   19-JAN-1993;   93US-00008910.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Draper KG;
XX
DR   WPI; 1993-386203/48.
XX
PT   New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT   with tumours or mRNA expressed from gene encoding multiple drug
PT   resistance.
XX
PS   Claim 3; Fig 6; 69pp; English.
XX
CC   The sequences given in AAQ51825-2266 represent areas of mRNAs which are
CC   associated with development or maintenance of chronic myelogenous
CC   leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC   lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC   leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC   The full length mRNAs containing these target sequences, encode aberant
CC   cellular proteins which are able to control cellular proliferation and
CC   are directly linked to a leukemic phenotype. These target sequences are
CC   identified by the ribozyme of the invention. The ribozymes is formed in a
CC   hammerhead motif, but may also be formed in the motif of a hairpin,
CC   hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC   may be used to inhibit the development or expression of a transformed
CC   phenotype in man and other animals by modulating expression of the
CC   corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC   and transformed cells elicits inhibition of the transformed state.
CC   Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC   mechanism of drug resistance used by transformed cells and thus enhances
CC   drug therapies for tumours. The ribozymes may also be used to study
CC   genetic drift and mutations within cells. (Updated on 25-MAR-2003 to
CC   correct PN field.)
XX
SQ   Sequence 17 BP; 2 A; 9 C; 4 G; 0 T; 2 U; 0 Other;
```

```
  Query Match             2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   88.2%;  Pred. No. 92;
  Matches   15;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        284 TGGCCCTCCGCCAAGCC 300
              :|||||:||||||||||
Db          1 UGGCCCUCCGCCAAGCC 17


RESULT 183
AAV19658/c
ID   AAV19658 standard; DNA; 17 BP.
XX
AC   AAV19658;
XX
DT   25-MAR-2003  (revised)
DT   12-JUN-1998  (first entry)
XX
DE   Human bcl-2 antisense oligonucleotide 4.
XX
KW   Antisense oligonucleotide; bcl-2 gene; lymphoma; leukaemia; human;
KW   cancer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   US5734033-A.
XX
PD   31-MAR-1998.
XX
PF   24-MAR-1994;   94US-00217082.
XX
PR   22-DEC-1988;   88US-00288692.
PR   21-FEB-1992;   92US-00840716.
XX
PA   (UYPE-) UNIV PENNSYLVANIA.
XX
PI   Reed J;
XX
DR   WPI; 1998-229881/20.
XX
PT   Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA - useful for
PT   treating cancers, e.g. lymphoma(s) and some leukaemia(s).
XX
PS   Disclosure; Col 14; 21pp; English.
XX
CC   This antisense oligonucleotide is complementary to the translation
CC   initiation site of the human bcl-2 mRNA. The Bcl-2 antisense
CC   oligonucleotides are phosphorothioate derivatives and can straddle
CC   strategic sites such as the translation initiation site, donor and
CC   acceptor splicing sites, or sites for transportation or degradation.
CC   Blocking translation at such strategic sites prevents the formation of a
CC   functional bcl-2 gene product. These oligonucleotides may be used for
CC   treating cancers associated with high levels of bcl-2 gene expression,
CC   especially lymphomas and some leukaemias. (Updated on 25-MAR-2003 to
CC   correct PF field.)
XX
SQ   Sequence 17 BP; 1 A; 7 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match             2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 GCGCACGCTGGGAGAAC 20
              |||||||||||||||||
Db         17 GCGCACGCTGGGAGAAC 1


RESULT 184
AAV19659/c
ID   AAV19659 standard; DNA; 17 BP.
XX
AC   AAV19659;
XX
DT   25-MAR-2003  (revised)
DT   12-JUN-1998  (first entry)
XX
DE   Human bcl-2 antisense oligonucleotide 5.
XX
KW   Antisense oligonucleotide; bcl-2 gene; lymphoma; leukaemia; human;
KW   cancer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   US5734033-A.
XX
PD   31-MAR-1998.
XX
PF   24-MAR-1994;   94US-00217082.
XX
PR   22-DEC-1988;   88US-00288692.
PR   21-FEB-1992;   92US-00840716.
XX
PA   (UYPE-) UNIV PENNSYLVANIA.
XX
PI   Reed J;
XX
DR   WPI; 1998-229881/20.
XX
PT   Anti-sense oligo:nucleotide(s) complementary to BCL-2 mRNA - useful for
PT   treating cancers, e.g. lymphoma(s) and some leukaemia(s).
XX
PS   Claim 6; Col 14; 21pp; English.
XX
CC   This antisense oligonucleotide is complementary to the translation
CC   initiation site of the human bcl-2 mRNA. The Bcl-2 antisense
CC   oligonucleotides are phosphorothioate derivatives and can straddle
CC   strategic sites such as the translation initiation site, donor and
CC   acceptor splicing sites, or sites for transportation or degradation.
CC   Blocking translation at such strategic sites prevents the formation of a
CC   functional bcl-2 gene product. These oligonucleotides may be used for
CC   treating cancers associated with high levels of bcl-2 gene expression,
CC   especially lymphomas and some leukaemias. (Updated on 25-MAR-2003 to
CC   correct PF field.)
XX
SQ   Sequence 17 BP; 2 A; 8 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAG 17
              |||||||||||||||||
Db         17 ATGGCGCACGCTGGGAG 1


RESULT 185
AAX88277/c
ID   AAX88277 standard; DNA; 17 BP.
XX
AC   AAX88277;
XX
DT   24-SEP-1999  (first entry)
XX
DE   Human bcl-2 antisense oligonucleotide primer.
XX
KW   Human; antisense; fusion transcript; translocation; non-oncogenic;
KW   translocation breakpoint; bcl-2; immunoglobulin; non-Hodgkin's lymphoma;
KW   follicular lymphoma; oncogenic; promoter; cellular proliferation;
KW   tumour cell; primer; ss.
XX
OS   Synthetic.
OS   Homo sapiens.
XX
PN   US5935937-A.
```

```
XX
PD   10-AUG-1999.
XX
PF   18-JUN-1997;   97US-00877831.
XX
PR   19-JUN-1996;   96US-0020072P.
XX
PA   (FOXC-) FOX CHASE CANCER CENT.
XX
PI   Smith MR;
XX
DR   WPI; 1999-457618/38.
XX
PT   Antisense oligonucleotides targeted to chromosomal translocation fusion
PT   transcripts useful for inhibiting the development of malignancy such as
PT   in non-Hodgkin's lymphoma.
XX
PS   Example 1; Col 13-14; 14pp; English.
XX
CC   This invention describes novel antisense oligonucleotides (I) targeted to
CC   a fusion transcript generated by translocation of chromosomal segments.
CC   Following entry into the cell, (I) binds specifically to a non-oncogenic
CC   fusion sequence of nucleic acids that encode the fusion transcript,
CC   therefore inhibiting production of the fusion protein. The specific
CC   mechanism of action of the antisense oligonucleotide is to bind
CC   specifically to a sequence adjacent to a chromosomal translocation
CC   breakpoint, thereby generating a bcl-immunoglobulin fusion. Pathological
CC   conditions relating to the expression of the fusion gene include non-
CC   Hodgkin's lymphomas and other follicular lymphomas. These conditions can
CC   be treated with the antisense oligonucleotides. Antisense
CC   oligonucleotides targeted to oncogenic sequences, e.g. bcl-2 promoter
CC   antisense oligonucleotides, are not always optimal for use in vivo due to
CC   nonspecific deleterious effects on normal cells. The antisense
CC   oligonucleotides inhibit the deregulated cellular proliferation of tumour
CC   cells, while not adversely affecting the growth of normal cells. Double-
CC   stranded DNA vectors as delivery vehicles exploit the greater natural
CC   stability of double-stranded (as compared to single-stranded) nucleic
CC   acids. The use of an expression vector that generates multiple RNA copies
CC   prolongs expression of the antisense RNA molecules in vivo. Delivery of
CC   the antisense oligonucleotide to cells is improved by encapsulating the
CC   oligonucleotide in a lipid vesicle
XX
SQ   Sequence 17 BP; 1 A; 7 C; 5 G; 4 T; 0 U; 0 Other;

  Query Match              2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 GCGCACGCTGGGAGAAC 20
              |||||||||||||||||
Db         17 GCGCACGCTGGGAGAAC 1


RESULT 186
ABK90362/c
ID   ABK90362 standard; DNA; 17 BP.
XX
AC   ABK90362;
XX
DT   21-OCT-2002  (first entry)
XX
DE   Bcl-2-targeting antisense oligonucleotide #31.
XX
KW   Antisense; ss; probe; Bcl-2; cell proliferative disorder; cancer; CRE;
KW   cAMP response element; bacterial infection; viral infection;
KW   inflammation; anaphylaxis; allergy; arthritis; asthma; cytostatic;
KW   autoimmune disorder; parasitic infection; virucide; hyperplasia;
KW   tumourigenesis; hepatitis B infection; human.
XX
OS   Homo sapiens.
XX
PN   WO200257480-A2.
XX
PD   25-JUL-2002.
XX
PF   22-JAN-2002; 2002WO-US001967.
XX
PR   22-JAN-2001; 2001US-0263244P.
XX
PA   (GENT-) GENTA INC.
XX
PI   Klem RE;
XX
DR   WPI; 2002-590754/63.
XX
PT   Hybrid oligomer comprises a cyclic AMP response element sequence and a
PT   sequence that hybridizes to the bcl-2 pre-mRNA or mRNA useful for
PT   preventing or treating cell-proliferative disorders e.g., cancer.
XX
PS   Disclosure; Page 13; 78pp; English.
XX
CC   The invention relates to a hybrid oligomer comprising a cyclic AMP
CC   response element (CRE) sequence and a sequence that hybridises to the bcl
CC   -2 pre-mRNA or mRNA. Also included are: (1) inhibiting the growth of
CC   cancer cells in vitro, which comprises contacting the cancer cells with a
CC   hybrid oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer;
CC   (2) treating or preventing cancer in a human, which comprises
CC   administering a hybrid oligomer or a bcl-2 antisense oligomer and a CRE
CC   decoy oligomer; and (3) a pharmaceutical composition comprising a hybrid
CC   oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer and a
CC   carrier. The pharmaceutical composition of the invention is useful for
CC   preventing or treating cell-proliferative disorders e.g., cancer,
CC   hyperplasia or tumourigenesis and also bacterial infection, viral
CC   infection, inflammation, anaphylaxis, allergy, arthritis, asthma,
CC   autoimmune disorders and parasitic infection. The CRE decoy oligomer and
CC   bcl-2 antisense oligomer are also useful for preventing or treating
CC   hepatitis B virus infection. The hybrid oligomers can also be used for
CC   screening candidate transcription factors or other molecules e.g., gene
CC   regulatory proteins or for diagnostic assays. The present sequence is a
CC   Bcl-2 antisense oligonucleotide
XX
SQ   Sequence 17 BP; 2 A; 8 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match              2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          2 TGGCGCACGCTGGGAGA 18
              |||||||||||||||||
Db         17 TGGCGCACGCTGGGAGA 1


RESULT 187
AAL46662/c
ID   AAL46662 standard; DNA; 17 BP.
XX
AC   AAL46662;
XX
DT   05-AUG-2002  (first entry)
XX
DE   Human bcl-2 mRNA PCR primer #2.
XX
KW   Human; bcl-2; cancer detection; disseminated cancer cell; cytostatic;
KW   PCR; primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200237113-A2.
XX
PD   10-MAY-2002.
XX
PF   05-NOV-2001; 2001WO-EP012786.
XX
PR   03-NOV-2000; 2000DE-01054635.
PR   03-NOV-2000; 2000US-0245854P.
XX
```

```
PA   (GIES/) GIESING M.
XX
PI   Giesing M,  Grill H,  Boeckmann B,  Suchy B;
XX
DR   WPI; 2002-426739/45.
XX
PT   Clinically validating target from disseminated cancer cells by
PT   determining whether status of target determined in cancer cells of
PT   individuals correlates with cancer-related information about clinical
PT   status of individuals.
XX
PS   Example 3; Page 55; 57pp; English.
XX
CC   The present invention relates to a method for the clinical validation of
CC   a target from disseminated cancer cells, characterised in that for a
CC   population of individuals it is determined whether a status of the target
CC   determined in disseminated cancer cells of the individuals correlates
CC   with at least one cancer-related information about the clinical status of
CC   the individuals. The method is useful for clinically validating target
CC   from disseminated cancer cells. The present sequence is a PCR primer used
CC   to demonstrate the method of the invention
XX
SQ   Sequence 17 BP; 2 A; 4 C; 8 G; 3 T; 0 U; 0 Other;

  Query Match             2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        547 CGGCACCTGCACACCTG 563
              |||||||||||||||||
Db         17 CGGCACCTGCACACCTG 1


RESULT 188
AAC65068/c
ID   AAC65068 standard; DNA; 18 BP.
XX
AC   AAC65068;
XX
DT   12-FEB-2001  (first entry)
XX
DE   Human bcl genes antisense sequence #12.
XX
KW   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
KW   protein kinase C; PKC; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061810-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009293.
XX
PR   08-APR-1999;   99US-0128377P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD,  Riley TA;
XX
DR   WPI; 2000-679502/66.
XX
PT   Antisense oligonucleotides containing degenerate and/or universal bases,
PT   and modified backbone linkages is useful to target therapeutic genes,
PT   preferably anti-apoptosis or chemoresistance genes.
XX
PS   Example 7; Fig 3; 32pp; English.
XX
CC   The present invention is concerned with antisense oligonucleotides
CC   containing a number of degenerate bases and with a modified backbone
CC   which can be used to direct cleavage of target RNA molecules. The use of
CC   degenerate bases reduces the risk of immune activation following
CC   injection into animals, which causes deleterious side effects associated
CC   with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC   C65077 are antisense oligonucleotides and PCR primers used in assays to
CC   demonstrate the effects of the sequences of the invention
XX
SQ   Sequence 18 BP; 2 A; 4 C; 9 G; 2 T; 0 U; 1 Other;

  Query Match             2.8%;  Score 17;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 99;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        147 CTCCTCCCAGCCCGGGCA 164
              |||||| ||||||||||
Db         18 CTCCTCNCAGCCCGGGCA 1


RESULT 189
AAC65069/c
ID   AAC65069 standard; DNA; 18 BP.
XX
AC   AAC65069;
XX
DT   12-FEB-2001  (first entry)
XX
DE   Human bcl genes antisense sequence #13.
XX
KW   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
KW   protein kinase C; PKC; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061810-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009293.
XX
PR   08-APR-1999;   99US-0128377P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD,  Riley TA;
XX
DR   WPI; 2000-679502/66.
XX
PT   Antisense oligonucleotides containing degenerate and/or universal bases,
PT   and modified backbone linkages is useful to target therapeutic genes,
PT   preferably anti-apoptosis or chemoresistance genes.
XX
PS   Example 7; Fig 3; 32pp; English.
XX
CC   The present invention is concerned with antisense oligonucleotides
CC   containing a number of degenerate bases and with a modified backbone
CC   which can be used to direct cleavage of target RNA molecules. The use of
CC   degenerate bases reduces the risk of immune activation following
CC   injection into animals, which causes deleterious side effects associated
CC   with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC   C65077 are antisense oligonucleotides and PCR primers used in assays to
CC   demonstrate the effects of the sequences of the invention
XX
SQ   Sequence 18 BP; 1 A; 2 C; 9 G; 3 T; 0 U; 3 Other;

  Query Match             2.7%;  Score 16.8;  DB 1;  Length 18;
  Best Local Similarity   83.3%;  Pred. No. 1e+02;
  Matches   15;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        157 CCCGGGCACACGCCCCAT 174
              |||||:|||||:|:||||
Db         18 CCCGGRCACACRCYCCAT 1


RESULT 190
AAC65065/c
ID   AAC65065 standard; DNA; 17 BP.
```

```
XX
AC   AAC65065;
XX
DT   12-FEB-2001  (first entry)
XX
DE   Human bcl genes antisense sequence #9.
XX
KW   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
KW   protein kinase C; PKC; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061810-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009293.
XX
PR   08-APR-1999;   99US-0128377P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD,  Riley TA;
XX
DR   WPI; 2000-679502/66.
XX
PT   Antisense oligonucleotides containing degenerate and/or universal bases,
PT   and modified backbone linkages is useful to target therapeutic genes,
PT   preferably anti-apoptosis or chemoresistance genes.
XX
PS   Example 7; Fig 3; 32pp; English.
XX
CC   The present invention is concerned with antisense oligonucleotides
CC   containing a number of degenerate bases and with a modified backbone
CC   which can be used to direct cleavage of target RNA molecules. The use of
CC   degenerate bases reduces the risk of immune activation following
CC   injection into animals, which causes deleterious side effects associated
CC   with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC   C65077 are antisense oligonucleotides and PCR primers used in assays to
CC   demonstrate the effects of the sequences of the invention
XX
SQ   Sequence 17 BP; 1 A; 8 C; 2 G; 5 T; 0 U; 1 Other;

  Query Match             2.7%;  Score 16.6;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1e+02;
  Matches   16;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         13 GGGAGAACGGGGTACGA 29
              |||||||| ||||||||
Db         17 GGGAGAACRGGGTACGA 1


RESULT 191
AAV52559/c
ID   AAV52559 standard; DNA; 18 BP.
XX
AC   AAV52559;
XX
DT   20-NOV-1998  (first entry)
XX
DE   Unmethylated CpG dinucleotide 1836.
XX
KW   Unmethylated CpG dinucleotide; immune response; bacterial meningitis;
KW   natural killer cell activation; NK cell; Th2 response; neonatal sepsis;
KW   pulmonary disorder; asthma; environmentally induced airway disease;
KW   bacterial infection; endotoxaemia; therapy; cystic fibrosis;
KW   inflammatory bowel disease; ss.
XX
OS   Synthetic.
XX
PN   WO9837919-A1.
XX
PD   03-SEP-1998.
XX
PF   25-FEB-1998;   98WO-US003678.
XX
PR   28-FEB-1997;   97US-0039405P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Schwartz DA,  Krieg AM;
XX
DR   WPI; 1998-480941/41.
XX
PT   Use of nucleic acids containing an unmethylated CpG - for treating a
PT   subject having or at risk of having an acute decrement in air flow or
PT   inhibiting an inflammatory response.
XX
PS   Example 4; Page 35; 65pp; English.
XX
CC   This sequence represents an unmethylated CpG dinucleotide, and can be
CC   used in the method of the invention. The method is for treating a subject
CC   having, or at risk of having an acute decrement in air flow, comprising
CC   administering a nucleic acid sequence containing at least one
CC   unmethylated CpG. The nucleic acids containing an unmethylated CpG
CC   dinucleotide affect an immune response in a subject by activating natural
CC   killer cells (NK) or redirecting a subject's immune response from a Th2
CC   to a Th1 response by inducing monocytic and other cells to produce Th1
CC   cytokines. They can be used to treat pulmonary disorders having an
CC   immunologic component, such as asthma or environmentally induced airway
CC   disease. They can also be used to treat diseases associated with Gram-
CC   positive bacterial infections or endotoxaemia including bacterial
CC   meningitis, neonatal sepsis, cystic fibrosis, inflammatory bowel disease
CC   and liver cirrhosis, Gram-negative pneumonia, Gram-negative abdominal
CC   abscess, haemorrhagic shock, disseminated intravascular coagulation, or
CC   an inflammatory response to lipopolysaccharide
XX
SQ   Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 192
AAV47681/c
ID   AAV47681 standard; DNA; 18 BP.
XX
AC   AAV47681;
XX
DT   20-NOV-1998  (first entry)
XX
DE   Unmethylated CpG dinucleotide 1835.
XX
KW   Unmethylated CpG dinucleotide; immune response; bacterial meningitis;
KW   natural killer cell activation; NK cell; Th2 response; neonatal sepsis;
KW   pulmonary disorder; asthma; environmentally induced airway disease;
KW   bacterial infection; endotoxaemia; therapy; cystic fibrosis;
KW   inflammatory bowel disease; ss.
XX
OS   Synthetic.
XX
PN   WO9837919-A1.
XX
PD   03-SEP-1998.
XX
PF   25-FEB-1998;   98WO-US003678.
XX
PR   28-FEB-1997;   97US-0039405P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
```

PI Schwartz DA, Krieg AM;
XX
DR WPI; 1998-480941/41.
XX
PT Use of nucleic acids containing an unmethylated CpG - for treating a
PT subject having or at risk of having an acute decrement in air flow or
PT inhibiting an inflammatory response.
XX
PS Claim 35; Page 27; 65pp; English.
XX
CC This sequence represents an unmethylated CpG dinucleotide, and can be
CC used in the method of the invention. The method is for treating a subject
CC having, or at risk of having an acute decrement in air flow, comprising
CC administering a nucleic acid sequence containing at least one
CC unmethylated CpG. The nucleic acids containing an unmethylated CpG
CC dinucleotide affect an immune response in a subject by activating natural
CC killer cells (NK) or redirecting a subject's immune response from a Th2
CC to a Th1 response by inducing monocytic and other cells to produce Th1
CC cytokines. They can be used to treat pulmonary disorders having an
CC immunologic component, such as asthma or environmentally induced airway
CC disease. They can also be used to treat diseases associated with Gram-
CC positive bacterial infections or endotoxaemia including bacterial
CC meningitis, neonatal sepsis, cystic fibrosis, inflammatory bowel disease
CC and liver cirrhosis, Gram-negative pneumonia, Gram-negative abdominal
CC abscess, haemorrhagic shock, disseminated intravascular coagulation, or
CC an inflammatory response to lipopolysaccharide
XX
SQ Sequence 18 BP; 3 A; 8 C; 4 G; 3 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCTCGCTGGGAGA 1

RESULT 193
AAV27733/c
ID AAV27733 standard; DNA; 18 BP.
XX
AC AAV27733;
XX
DT 01-OCT-1998 (first entry)
XX
DE Immunostimulatory oligodeoxyribonucleotide of the invention.
XX
KW Immunostimulatory; oligodeoxyribonucleotide; ODN;
KW unmethylated CpG dinucleotide; activate; lymphocyte; immune response;
KW Th2; Th1; cytokine; treatment; prevention; asthma; autoimmune disease;
KW desensitisation therapy; artificial adjuvant; antibody generation; ss.
XX
OS Synthetic.
XX
PN WO9818810-A1.
XX
PD 07-MAY-1998.
XX
PF 30-OCT-1997; 97WO-US019791.
XX
PR 30-OCT-1996; 96US-00738652.
XX
PA (IOWA) UNIV IOWA RES FOUND.
XX
PI Krieg AM, Kline JN;
XX
DR WPI; 1998-272127/24.
XX
PT New immunostimulatory nucleic acid molecules - which contain at least one
PT unmethylated CpG dinucleotide, used for treating e.g. tumours, infections
PT or autoimmune disease.
XX
PS Disclosure; Page 49; 109pp; English.
XX
CC AAV27641-751 represent immunostimulatory oligodeoxyribonucleotides (ODNs)
CC of the invention. The ODNs contain at least one unmethylated CpG
CC dinucleotide, and have the formula: 5' N1X1CGX2N2 3', where at least one
CC nucleotide separates consecutive CpGs, X1 is adenine, guanine, or
CC thymine, X2 is cytosine or thymine, N is any nucleotide and N1+N2 is 0-26
CC bases with the provision that N1 and N2 does not contain a CCGG tetramer
CC or more than one CCG or CGG trimer OR 5' NX1X2CGX3X4N 3', where at least
CC one nucleotide separates consecutive CpGs, X1 and X2 are selected from
CC GpT, GpG, GpA, ApT and ApA, X3and X4 are selected from TpT or CpT, N is
CC any nucleotide and N1+N2 is 0-26 bases with the provision that N1 and N2
CC does not contain a CCGG tetramer or more than one CCG or CGG trimer. The
CC ODNs activate lymphocytes in a subject and redirect a subject's immune
CC response from a Th2 to a Th1 (e.g. by inducing monocytic cells and other
CC cells to produce Th1 cytokines, including IL-12, IFN-gamma and GM-CSF).
CC The ODNs can be used to treat or prevent an asthmatic disorder,
CC autoimmune diseases, in desensitisation therapy, as an artificial
CC adjuvant during antibody generation in a mammal such as a mouse or a
CC human
XX
SQ Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 194
AAZ41918/c
ID AAZ41918 standard; DNA; 18 BP.
XX
AC AAZ41918;
XX
DT 24-JAN-2000 (first entry)
XX
DE IL-12 secretion inducing CpG oligonucleotide 63.
XX
KW CpG oligonucleotide; phosphorothioate; interleukin-12; IL-12; secretion;
KW human PBMC; immune response; cancer; HIV; bacterial disease; asthma;
KW neoplastic disorder; jaagsiekte; B cell; NK cell; ss; cytokine;
KW antigen presenting cell; infection; allergic disease.
XX
OS Synthetic.
XX
PN WO9951259-A2.
XX
PD 14-OCT-1999.
XX
PF 02-APR-1999; 99WO-US007335.
XX
PR 03-APR-1998; 98US-0080729P.
XX
PA (IOWA) UNIV IOWA RES FOUND.
XX
PI Krieg AM, Weiner G;
XX
DR WPI; 1999-620169/53.
XX
PT Novel synergistic combinations of immunostimulatory oligonucleotides and
PT immunopotentiating cytokines are useful for stimulating the immune
PT system.
XX
PS Example 8; Page 82; 91pp; English.
XX
CC Sequences AAZ41856-Z41949 are phosphorothioate CpG oligonucleotides which
CC are used in the invention to induce interleukin-12 (IL-12) secretion from
CC human PBMC. The invention comprises stimulating an immune response in a
CC subject comprising administering to a subject exposed to an antigen, an

CC immunopotentiating cytokine and an immunostimulatory CpG oligonucleotide
CC to induce a synergistic antigen specific immune response. The methods are
CC useful for treating cancer by stimulating an antigen specific immune
CC response against a cancer antigen. The methods can also be used to treat
CC neoplastic disorders in humans, including but not limited to: sarcoma,
CC carcinoma, fibroma, Lymphoma, melanoma, neuroblastoma, retinoblastoma,
CC and glioma. The methods are also useful for treating infectious diseases,
CC e.g. viral diseases such as HIV, bacterial diseases, and fungal diseases.
CC The methods may also be used to treat allergic diseases, e.g. asthma. The
CC methods and compositions may also be applied to treat cancer and tumours
CC in non human subjects, e.g. cats and dogs. Neoplasias affecting
CC agricultural livestock may also be treated and include leukaemia,
CC haemangiopericytoma and bovine ocular neoplasia. Chronic, infectious,
CC contagious diseases of sheep and goats caused by the bacterium
CC Corynebacterium pseudotuberculosis, and contagious lung tumour of sheep
CC caused by jaagsiekte may also be treated. CpG oligonucleotides can be
CC useful in activating B cells, NK cells, and antigen presenting cells,
CC such as monocytes and macrophages. CpG oligonucleotides enhance antibody
CC dependent cellular cytotoxicity and can be used as an adjuvant in
CC conjunction with tumour antigens to protect against a tumour challenge
XX
SQ Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| |||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 195
AAZ47994/c
ID AAZ47994 standard; DNA; 18 BP.
XX
AC AAZ47994;
XX
DT 08-MAR-2000 (first entry)
XX
DE Immune remodeling inducing CpG oligonucleotide SEQ ID NO:72.
XX
KW Haematopoiesis; regulation; CpG oligonucleotide; phosphorothioate;
KW immune remodeling; thrombopoiesis; anaemia; immune system; cancer;
KW immune response; allergic reaction; infectious disease; asthma;
KW thrombocytopaenia; immunohaemolytic disorder; genetic disorder;
KW haemoglobinopathy; kidney failure; chronic inflammatory disorder;
KW rheumatoid arthritis; ss.
XX
OS Synthetic.
XX
PN WO9958118-A2.
XX
PD 18-NOV-1999.
XX
PF 14-MAY-1999; 99WO-IB001285.
XX
PR 14-MAY-1998; 98US-0085516P.
PR 02-FEB-1999; 99US-00241653.
XX
PA (CPGI-) CPG IMMUNOPHARMACEUTICALS GMBH.
PA (CPGI-) CPG IMMUNOPHARMACEUTICALS INC.
XX
PI Wagner H, Lipford G;
XX
DR WPI; 2000-062261/05.
XX
PT Use of CpG containing oligonucleotides for, e.g. inducing an antigen-
PT specific immune response.
XX
PS Example 1; Page 66; 116pp; English.
XX
CC The present invention describes a method using CpG containing
CC oligonucleotides (ONs) for regulating immune system remodeling and for
CC regulating haematopoiesis. The method for inducing an antigen-specific
CC immune response comprises: (1) administering an ON having a sequence
CC including at least the formula (I); and (2) exposing the subject to an
CC antigen at least 3 days after the ON is administered to the subject to
CC produce an antigen-specific immune response: 5' X1CGX2 3' (I), where the
CC ON = includes at least 8 nucleotides; C and G = unmethylated, and X1 and
CC X2 = nucleotides. The method can be used for inducing an immune response
CC against an antigen such as cells, cell extracts, proteins,
CC polysaccharides, polysaccharide conjugates, lipids, glycolipids,
CC carbohydrate, viral extracts, viruses, bacteria, fungi, parasites and
CC allergens. It can be used in a subject at risk of developing cancer or an
CC allergic reaction. It can also be used for treating an infectious
CC disease, allergic diseases and asthma, as well as thrombocytopaenia which
CC is drug-induced, due to an autoimmune disorder such as idiopathic
CC thrombocytopenic purpura, or resulting from accidental or therapeutic
CC radiation exposure. It can also be used for treating anaemia such as drug
CC -induced anaemia, immunohaemolytic disorder, genetic disorders such as
CC haemoglobinopathy and inherited haemolytic anaemia, inadequate production
CC despite adequate iron stores, chronic disease such as kidney failure, and
CC chronic inflammatory disorder such as rheumatoid arthritis, or anaemia
CC resulting from accidental or therapeutic radiation exposure. AAZ47932 to
CC AAZ48029 represent phosphorothioate CpG oligonucleotides used in the
CC exemplification of the present invention
XX
SQ Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| |||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 196
AAZ47655/c
ID AAZ47655 standard; DNA; 18 BP.
XX
AC AAZ47655;
XX
DT 01-MAR-2000 (first entry)
XX
DE Parasitic infection preventing exemplary oligonucleotide SEQ ID NO:61.
XX
KW Immune system; immunostimulatory; parasitic infection; parasite;
KW CpG oligonucleotide; antigen presenting cell; natural killer cell;
KW granulocyte; malaria; helminth disease; tick; mite; ss.
XX
OS Synthetic.
XX
PN WO9956755-A1.
XX
PD 11-NOV-1999.
XX
PF 06-MAY-1999; 99WO-US009863.
XX
PR 06-MAY-1998; 98US-0084512P.
XX
PA (IOWA) UNIV IOWA RES FOUND.
PA (OTTA-) OTTAWA CIVIC LOEB RES INST.
PA (USNA) US SEC OF NAVY.
XX
PI Gramzinski RA, Krieg AM, Davis HL, Hoffman SL;
XX
DR WPI; 2000-062123/05.
XX
PT Treating and preventing parasitic infections using CpG oligonucleotides.
XX
PS Disclosure; Page 21; 74pp; English.
XX
CC The present invention describes a method for treating and preventing

CC parasitic infection by administration of unmethylated CpG
CC oligonucleotides. The CpG oligonucleotides are able to stimulate the
CC innate immune system via the activation of immune cells, such as antigen
CC presenting cells, natural killer cells and granulocytes. The CpG
CC oligonucleotides and the method can be used to treat and prevent
CC parasitic diseases, such as malaria, helminth diseases, tick and mites in
CC humans, animals and poultry. The oligonucleotides may be administered in
CC conjunction with parasiticides or other therapeutic compounds after an
CC organism has been diagnosed to be infected with parasites. Diseases which
CC can be treated or prevented include those caused by Plasmodium
CC falciparum, P. ovale, P. malariae, P. vivax, P. knowlesi, Babesia
CC microti, B. divergens, Trypanosoma cruzi, T. gambiense, T. rhodesiense,
CC Schistosoma mansoni, Toxoplasma gondii, Trichinella spiralis, Leishmania
CC major, L. donovani, L. braziliensis, and L. tropica. The parasite is
CC especially capable of causing malaria. The present sequence represents a
CC parasitic infection preventing exemplary oligonucleotide sequence from
CC the present invention
XX
SQ Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| |||||||||| |
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 197
AAH50640/c
ID AAH50640 standard; DNA; 18 BP.
XX
AC AAH50640;
XX
DT 22-AUG-2001 (first entry)
XX
DE Natural killer cell lytic activity inducing oligonucleotide SEQ ID NO:72.
XX
KW Immunostimulatory; inducing; natural killer cell; lytic activity;
KW unmethylated CpG dinucleotide; immune response; B cell proliferation;
KW Th1; immune activation; interleukin 6; IL-6; interferon gamma; IFN-gamma;
KW cytokine; ss.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN US6239116-B1.
XX
PD 29-MAY-2001.
XX
PF 30-OCT-1997; 97US-00960774.
XX
PR 30-OCT-1996; 96US-00738652.
XX
PA (IOWA) UNIV IOWA RES FOUND.
PA (COLE-) COLEY PHARM GROUP INC.
PA (USSH) US DEPT HEALTH & HUMAN SERVICES.
XX
PI Krieg AM, Kline JN;
XX
DR WPI; 2001-380456/40.
XX
PT Methods for inducing Il-6, interferon-gamma or Il-12, or stimulating
PT natural killer cell lytic activity in a human, comprise administering to
PT the subject or exposing a natural killer cell to immunostimulatory
PT nucleic acids.
XX
PS Disclosure; Col 32; 74pp; English.
XX
CC The present invention describes methods for inducing interleukin 6 (IL-
CC 6), interferon-gamma (IFN-gamma) or IL-12, or for stimulating natural
CC killer cell lytic activity. The methods comprise administering to the
CC subject or exposing a natural killer cell to an immunostimulatory nucleic
CC acid. Also described are: (1) inducing IL-6 in a subject comprising
CC administering to the subject to induce IL-6 in the subject the
CC immunostimulatory nucleic acid; (2) stimulating natural killer cell lytic
CC activity comprising exposing a natural killer cell to the
CC immunostimulatory nucleic acid to stimulate natural killer cell lytic
CC activity; (3) inducing interferon-gamma in a subject to treat an immune
CC system deficiency comprising administering to the subject to induce
CC interferon-gamma production, the immunostimulatory nucleic acid; and (4)
CC inducing IL-12 in a subject comprising administering to the subject the
CC immunostimulatory nucleic acid. The methods are useful for inducing IL-6,
CC interferon-gamma or IL-12, or stimulating natural killer cell lytic
CC activity in a subject, particularly a human. The methods are particularly
CC useful for modulating an immune response. AAH50571 to AAH50671 represent
CC oligonucleotide sequences used in the exemplification of the present
CC invention
XX
SQ Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| |||||||||| |
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 198
AAF98954/c
ID AAF98954 standard; DNA; 18 BP.
XX
AC AAF98954;
XX
DT 12-JUN-2001 (first entry)
XX
DE Immunostimulatory nucleic acid #70.
XX
KW Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW immunostimulatory; tumour; viral infection; bacterial infection;
KW fungal infection; parasitic infection; cancer; asthma;
KW infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS Synthetic.
XX
PN WO200122972-A2.
XX
PD 05-APR-2001.
XX
PF 25-SEP-2000; 2000WO-US026383.
XX
PR 25-SEP-1999; 99US-0156113P.
PR 27-SEP-1999; 99US-0156135P.
PR 23-AUG-2000; 2000US-0227436P.
XX
PA (IOWA) UNIV IOWA RES FOUND.
PA (COLE-) COLEY PHARM GMBH.
XX
PI Krieg AM, Schetter C, Vollmer J;
XX
DR WPI; 2001-273485/28.
XX
PT Vaccinating against tumors, infectious diseases, allergies and asthma
PT using immunostimulatory Py-rich and TG nucleic acids.
XX
PS Disclosure; Page 40; 338pp; English.
XX
CC The present invention relates to a method for stimulating an immune
CC response. The method comprises administering an immunostimulatory nucleic
CC acid to a non-rodent subject in sufficient quantity to stimulate an
CC immune response. The present sequence is one such immunostimulatory
CC nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects

```
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 199
AAF98953/c
ID   AAF98953 standard; DNA; 18 BP.
XX
AC   AAF98953;
XX
DT   12-JUN-2001  (first entry)
XX
DE   Immunostimulatory nucleic acid #69.
XX
KW   Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW   immunostimulatory; tumour; viral infection; bacterial infection;
KW   fungal infection; parasitic infection; cancer; asthma;
KW   infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS   Synthetic.
XX
PN   WO200122972-A2.
XX
PD   05-APR-2001.
XX
PF   25-SEP-2000; 2000WO-US026383.
XX
PR   25-SEP-1999;   99US-0156113P.
PR   27-SEP-1999;   99US-0156135P.
PR   23-AUG-2000; 2000US-0227436P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Krieg AM,  Schetter C,  Vollmer J;
XX
DR   WPI; 2001-273485/28.
XX
PT   Vaccinating against tumors, infectious diseases, allergies and asthma
PT   using immunostimulatory Py-rich and TG nucleic acids.
XX
PS   Disclosure; Page 40; 338pp; English.
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 18 BP; 3 A; 8 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCTCGCTGGGAGA 1


RESULT 200
AAF99277/c
ID   AAF99277 standard; DNA; 18 BP.
XX
AC   AAF99277;
XX
DT   12-JUN-2001  (first entry)
XX
DE   Immunostimulatory nucleic acid #393.
XX
KW   Vaccine; cytostatic; virucidal; bactericidal; fungicidal; anti-parasitic;
KW   immunostimulatory; tumour; viral infection; bacterial infection;
KW   fungal infection; parasitic infection; cancer; asthma;
KW   infectious disease; allergy; immune deficiency; phosphorothioate; ss.
XX
OS   Synthetic.
XX
PN   WO200122972-A2.
XX
PD   05-APR-2001.
XX
PF   25-SEP-2000; 2000WO-US026383.
XX
PR   25-SEP-1999;   99US-0156113P.
PR   27-SEP-1999;   99US-0156135P.
PR   23-AUG-2000; 2000US-0227436P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Krieg AM,  Schetter C,  Vollmer J;
XX
DR   WPI; 2001-273485/28.
XX
PT   Vaccinating against tumors, infectious diseases, allergies and asthma
PT   using immunostimulatory Py-rich and TG nucleic acids.
XX
PS   Claim 101; Page 46; 338pp; English.
XX
CC   The present invention relates to a method for stimulating an immune
CC   response. The method comprises administering an immunostimulatory nucleic
CC   acid to a non-rodent subject in sufficient quantity to stimulate an
CC   immune response. The present sequence is one such immunostimulatory
CC   nucleic acid. The immunostimulatory nucleic acids can be pyrimidine rich
CC   (py-rich) or thymidine (T) rich. The method is used to vaccinate subjects
CC   against tumour antigens, viral antigens (e.g. herpesviridae, retroviridae
CC   and/or orthomyxoviridae), bacterial antigens (e.g. toxoplasma,
CC   haemophilus, campylobacter, clostridium, Escherichia coli and/or
CC   staphylococcus), fungal antigens and/or parasitic antigens. The method is
CC   also useful for preventing cancer, asthma, infectious disease, allergy or
CC   immune deficiency. The present sequence can also be used to redirect a
CC   Th2 to a Th1 immune response and to activate immune cells. Note: the
CC   present sequence may have a phosphorothioate backbone
XX
SQ   Sequence 18 BP; 3 A; 8 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
```

```
                    |||||| ||||||||||
Db          18 ATGGCGTACGCTGGGAGA 1


RESULT 201
ABS77922/c
ID   ABS77922 standard; DNA; 18 BP.
XX
AC   ABS77922;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Angiogenesis inhibitory oligonucleotide #406.
XX
KW   Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW   tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW   diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW   corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW   rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW   plaque neovascularisation; telangiectasia; haemophiliac joint;
KW   angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW   scleroderma; hypertrophic scar.
XX
OS   Synthetic.
XX
PN   WO200253141-A2.
XX
PD   11-JUL-2002.
XX
PF   14-DEC-2001; 2001WO-US048458.
XX
PR   14-DEC-2000; 2000US-0255534P.
XX
PA   (COLE-) COLEY PHARM GROUP INC.
XX
PI   Bratzler RL;
XX
DR   WPI; 2002-566690/60.
XX
PT   Inhibiting angiogenesis in a subject, involves administering at least one
PT   antiangiogenic nucleic acid molecule to the subject.
XX
PS   Claim 2; Page 26; 276pp; English.
XX
CC   The invention relates to inhibiting angiogenesis in a subject, comprising
CC   administering at least one antiangiogenic nucleic acid molecule. Also
CC   included is a kit comprising a first container housing the antiangiogenic
CC   nucleic acids, and instructions for administering them to a subject
CC   having a condition characterised by unwanted angiogenesis. The method is
CC   useful for inhibiting angiogenesis associated with solid tumour growth,
CC   tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC   diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC   corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC   rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC   neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC   wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC   hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC   acid of the invention
XX
SQ   Sequence 18 BP; 3 A; 8 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
                ||||||  ||||||||||
Db         18 ATGGCGTACGCTGGGAGA 1


RESULT 202
ABS77595/c
ID   ABS77595 standard; DNA; 18 BP.
XX
AC   ABS77595;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Angiogenesis inhibitory oligonucleotide #79.
XX
KW   Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW   tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW   diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW   corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW   rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW   plaque neovascularisation; telangiectasia; haemophiliac joint;
KW   angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW   scleroderma; hypertrophic scar.
XX
OS   Synthetic.
XX
PN   WO200253141-A2.
XX
PD   11-JUL-2002.
XX
PF   14-DEC-2001; 2001WO-US048458.
XX
PR   14-DEC-2000; 2000US-0255534P.
XX
PA   (COLE-) COLEY PHARM GROUP INC.
XX
PI   Bratzler RL;
XX
DR   WPI; 2002-566690/60.
XX
PT   Inhibiting angiogenesis in a subject, involves administering at least one
PT   antiangiogenic nucleic acid molecule to the subject.
XX
PS   Claim 2; Page 21; 276pp; English.
XX
CC   The invention relates to inhibiting angiogenesis in a subject, comprising
CC   administering at least one antiangiogenic nucleic acid molecule. Also
CC   included is a kit comprising a first container housing the antiangiogenic
CC   nucleic acids, and instructions for administering them to a subject
CC   having a condition characterised by unwanted angiogenesis. The method is
CC   useful for inhibiting angiogenesis associated with solid tumour growth,
CC   tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC   diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC   corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC   rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC   neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC   wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC   hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC   acid of the invention
XX
SQ   Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
                ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 203
ABS77594/c
ID   ABS77594 standard; DNA; 18 BP.
XX
AC   ABS77594;
XX
DT   13-DEC-2002  (first entry)
XX
DE   Angiogenesis inhibitory oligonucleotide #78.
XX
```

```
KW   Angiogenesis inhibitor; ss; angiogenesis; solid tumour growth;
KW   tumour metastasis; precancerous lesion; rheumatoid arthritis; psoriasis;
KW   diabetic retinopathy; retinopathy of prematurity; macular degeneration;
KW   corneal graft rejection; neovascular glaucoma; retrolental fibroplasia;
KW   rubeosis; Osler-Webber Syndrome; myocardial angiogenesis;
KW   plaque neovascularisation; telangiectasia; haemophiliac joint;
KW   angiofibroma; wound granulation; intestinal adhesion; atherosclerosis;
KW   scleroderma; hypertrophic scar.
XX
OS   Synthetic.
XX
PN   WO200253141-A2.
XX
PD   11-JUL-2002.
XX
PF   14-DEC-2001; 2001WO-US048458.
XX
PR   14-DEC-2000; 2000US-0255534P.
XX
PA   (COLE-) COLEY PHARM GROUP INC.
XX
PI   Bratzler RL;
XX
DR   WPI; 2002-566690/60.
XX
PT   Inhibiting angiogenesis in a subject, involves administering at least one
PT   antiangiogenic nucleic acid molecule to the subject.
XX
PS   Claim 2; Page 21; 276pp; English.
XX
CC   The invention relates to inhibiting angiogenesis in a subject, comprising
CC   administering at least one antiangiogenic nucleic acid molecule. Also
CC   included is a kit comprising a first container housing the antiangiogenic
CC   nucleic acids, and instructions for administering them to a subject
CC   having a condition characterised by unwanted angiogenesis. The method is
CC   useful for inhibiting angiogenesis associated with solid tumour growth,
CC   tumour metastasis, precancerous lesion, rheumatoid arthritis, psoriasis,
CC   diabetic retinopathy, retinopathy of prematurity, macular degeneration,
CC   corneal graft rejection, neovascular glaucoma, retrolental fibroplasia,
CC   rubeosis, Osler-Webber Syndrome, myocardial angiogenesis, plaque
CC   neovascularisation, telangiectasia, haemophiliac joints, angiofibroma,
CC   wound granulation, intestinal adhesions, atherosclerosis, scleroderma and
CC   hypertrophic scars. The present sequence is an antiangiogenic nucleic
CC   acid of the invention
XX
SQ   Sequence 18 BP; 3 A; 8 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCTCGCTGGGAGA 1


RESULT 204
ABL39318/c
ID   ABL39318 standard; DNA; 18 BP.
XX
AC   ABL39318;
XX
DT   16-APR-2002  (first entry)
XX
DE   Immunostimulatory nucleic acid SEQ ID NO: 750.
XX
KW   Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
KW   angiogenesis; metastasis; cytostatic; phosphorothioate backbone; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .18
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "phosphorothioate backbone"
XX
PN   WO200197843-A2.
XX
PD   27-DEC-2001.
XX
PF   22-JUN-2001; 2001WO-US020154.
XX
PR   22-JUN-2000; 2000US-0213346P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Weiner G,  Hartmann G;
XX
DR   WPI; 2002-154611/20.
XX
PT   Treating or preventing cancer, such as basal cell carcinoma, comprises
PT   administering immunostimulatory nucleic acids that induce expression of
PT   cell surface antigens and antibodies to a subject having or at risk of
PT   developing cancer.
XX
PS   Disclosure; Page 287; 312pp; English.
XX
CC   The present invention relates to methods for treating or preventing
CC   cancer, involving administering to a subject having or at risk of
CC   developing cancer immunostimulatory nucleic acids that induce expression
CC   of cell surface antigens and antibodies. The methods are useful for
CC   treating or preventing cancer such as basal cell carcinoma, bladder
CC   cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC   breast cancer, cervical cancer, colon and rectum cancer, connective
CC   tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
CC   cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC   Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC   cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin
CC   cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC   present sequence is an immunostimulatory oligonucleotide described in the
CC   exemplification of the invention
XX
SQ   Sequence 18 BP; 3 A; 8 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCTCGCTGGGAGA 1


RESULT 205
ABL39319/c
ID   ABL39319 standard; DNA; 18 BP.
XX
AC   ABL39319;
XX
DT   16-APR-2002  (first entry)
XX
DE   Immunostimulatory nucleic acid SEQ ID NO: 751.
XX
KW   Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
KW   angiogenesis; metastasis; cytostatic; phosphorothioate backbone; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .18
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "phosphorothioate backbone"
XX
PN   WO200197843-A2.
```

```
XX
PD   27-DEC-2001.
XX
PF   22-JUN-2001; 2001WO-US020154.
XX
PR   22-JUN-2000; 2000US-0213346P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Weiner G,  Hartmann G;
XX
DR   WPI; 2002-154611/20.
XX
PT   Treating or preventing cancer, such as basal cell carcinoma, comprises
PT   administering immunostimulatory nucleic acids that induce expression of
PT   cell surface antigens and antibodies to a subject having or at risk of
PT   developing cancer.
XX
PS   Disclosure; Page 287; 312pp; English.
XX
CC   The present invention relates to methods for treating or preventing
CC   cancer, involving administering to a subject having or at risk of
CC   developing cancer immunostimulatory nucleic acids that induce expression
CC   of cell surface antigens and antibodies. The methods are useful for
CC   treating or preventing cancer such as basal cell carcinoma, bladder
CC   cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC   breast cancer, cervical cancer, colon and rectum cancer, connective
CC   tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
CC   cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC   Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC   cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin
CC   cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC   present sequence is an immunostimulatory oligonucleotide described in the
CC   exemplification of the invention
XX
SQ   Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 206
ABL39321/c
ID   ABL39321 standard; DNA; 18 BP.
XX
AC   ABL39321;
XX
DT   16-APR-2002  (first entry)
XX
DE   Immunostimulatory nucleic acid SEQ ID NO: 753.
XX
KW   Antibody-induced cell lysis; cancer; immunostimulatory; CD20;
KW   angiogenesis; metastasis; cytostatic; phosphorothioate backbone; ss.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   modified_base    1. .18
FT                    /*tag=  a
FT                    /mod_base= OTHER
FT                    /note= "phosphorothioate backbone"
XX
PN   WO200197843-A2.
XX
PD   27-DEC-2001.
XX
PF   22-JUN-2001; 2001WO-US020154.
XX
PR   22-JUN-2000; 2000US-0213346P.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Weiner G,  Hartmann G;
XX
DR   WPI; 2002-154611/20.
XX
PT   Treating or preventing cancer, such as basal cell carcinoma, comprises
PT   administering immunostimulatory nucleic acids that induce expression of
PT   cell surface antigens and antibodies to a subject having or at risk of
PT   developing cancer.
XX
PS   Disclosure; Page 288; 312pp; English.
XX
CC   The present invention relates to methods for treating or preventing
CC   cancer, involving administering to a subject having or at risk of
CC   developing cancer immunostimulatory nucleic acids that induce expression
CC   of cell surface antigens and antibodies. The methods are useful for
CC   treating or preventing cancer such as basal cell carcinoma, bladder
CC   cancer, bone cancer, brain and central nervous system (CNS) cancer,
CC   breast cancer, cervical cancer, colon and rectum cancer, connective
CC   tissue cancer, oesophageal cancer, eye cancer, kidney cancer, larynx
CC   cancer, leukaemia, liver cancer, lung cancer, Hodgkin's lymphoma, non-
CC   Hodgkin's lymphoma, melanoma, myeloma, oral cavity cancer, ovarian
CC   cancer, pancreatic cancer, prostate cancer, rhabdomyosarcoma, skin
CC   cancer, stomach cancer, testicular cancer, and uterine cancer. The
CC   present sequence is an immunostimulatory oligonucleotide described in the
CC   exemplification of the invention
XX
SQ   Sequence 18 BP; 3 A; 8 C; 3 G; 4 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGTACGCTGGGAGA 1


RESULT 207
AAL39238/c
ID   AAL39238 standard; DNA; 18 BP.
XX
AC   AAL39238;
XX
DT   05-SEP-2002  (first entry)
XX
DE   Murine Toll-like receptor related CpG DNA SEQ ID No 113.
XX
KW   Murine Toll-like receptor; TLR9; TLR7; TLR8; ISNA; ds.
XX
OS   Unidentified.
XX
PN   WO200222809-A2.
XX
PD   21-MAR-2002.
XX
PF   17-SEP-2001; 2001WO-US029229.
XX
PR   15-SEP-2000; 2000US-0233035P.
PR   23-JAN-2001; 2001US-0263657P.
PR   17-MAY-2001; 2001US-0291726P.
PR   22-JUN-2001; 2001US-0300210P.
XX
PA   (COLE-) COLEY PHARM GMBH.
XX
PI   Bauer S,  Lipford G,  Wagner H;
XX
DR   WPI; 2002-393964/42.
XX
PT   New isolated murine Toll-like receptor (TLR)9, TLR7, TLR8 polypeptides,
```

PT useful for identifying species specificity of immunostimulatory nucleic
PT acid and identifying immunostimulatory nucleic acids.
XX
PS Disclosure; Page 77; 195pp; English.
XX
CC The invention relates to isolated murine Toll-like receptors (TLR)9, TLR7
CC and TLR8 polypeptides. These polypeptides comprise fully defined
CC sequences of 1032, 1050 or 1032 amino acids as given in specification, or
CC their fragments, where TLR9, TLR7 and TLR8 polypeptides or their
CC fragments have an amino acid sequence which is identical to human TLR9,
CC TLR7 or TLR8 polypeptides or their fragment except for at least one amino
CC acid of a murine TLR polypeptide. The isolated nucleic acids of the
CC invention are useful for inhibiting TLR9 signalling activity in a cell.
CC TLR7, TLR8 and TLR9 polypeptides are useful for identifying nucleic acid
CC molecules which interact with a TLR polypeptide or its fragment. The
CC TLR7, TLR8 or TLR9 polypeptides are also useful for identifying ISNA. The
CC TLR7, TLR8 and TLR9 polypeptides are also useful for comparing TLR9
CC signalling activity of a test compound (that is not a nucleic acid, and
CC is a polypeptide or a part of a combinatorial library of compounds) with
CC an ISNA. The TLR7, TLR8 and TLR9 polypeptides are also useful for
CC identifying species specificity of an ISNA. The isolated nucleic acids of
CC the invention are useful as probes or primers. This polynucleotide
CC sequence represents DNA relating to the isolated Toll-like receptors of
CC the invention
XX
SQ Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
|||||||:||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 208
ABS70577/c
ID ABS70577 standard; DNA; 18 BP.
XX
AC ABS70577;
XX
DT 25-NOV-2002 (first entry)
XX
DE Dendritic cell stimulating CpG oligodeoxynucleotide #66.
XX
KW CpG; ss; dendritic cell; dendritic cell activation; cytostatic;
KW antiallergic; cancer; immunotherapy; infectious disease; allergy.
XX
OS Synthetic.
XX
PN US6429199-B1.
XX
PD 06-AUG-2002.
XX
PF 13-NOV-1998; 98US-00191170.
XX
PR 15-JUL-1994; 94US-00276358.
PR 07-FEB-1995; 95US-00386063.
PR 30-OCT-1996; 96US-00738652.
PR 30-OCT-1997; 97US-00960774.
XX
PA (IOWA) UNIV IOWA RES FOUND.
XX
PI Krieg AM, Hartmann G;
XX
DR WPI; 2002-689667/74.
XX
PT Activating a dendritic cell for cancer immunotherapy or for treating
PT infectious or allergy disease, by contacting a dendritic cell with an
PT isolated nucleic acid containing at least one unmethylated CpG
PT dinucleotide.
XX
PS Example 6; Col 32; 52pp; English.
XX
CC This invention relates to a novel method for activating or causing
CC maturation of a dendritic cell. The method comprises contacting a
CC dendritic cell with an isolated nucleic acid containing at least one
CC unmethylated CpG dinucleotide in an amount effective to activate or cause
CC maturation of the dendritic cell, where the activation is performed ex
CC vivo. The method of the invention may have cytostatic or antiallergic
CC activities. The method of the invention is useful for cancer
CC immunotherapy or for treating an infectious disease or allergy, by
CC administering an activated dendritic cell that express a specific cancer,
CC microbial or allergy causing antigen, to a subject having a cancer
CC including the cancer antigen, to a subject having an infection with a
CC microorganism including the microbial antigen or to a subject having an
CC allergic reaction to the allergy causing antigen, where the activated
CC dendritic cell is prepared using the method of the invention. The method
CC is useful for generating a high yield of dendritic cells by administering
CC an isolated nucleic acid containing at least one unmethylated CpG
CC dinucleotide, where the nucleic acid is 8-80 bases in length in an amount
CC effective to activate the dendritic cells to a subject, and isolating
CC dendritic cells from the subject. The use of CpG allows the generation of
CC mature dendritic cells from peripheral blood within two days in a well
CC defined system. The application of CpG for this purpose is superior to
CC granulocyte macrophage-colony stimulating factor (GM-CSF), which is
CC currently used for this purpose. CpG oligonucleotides have a longer half
CC life, are less expensive, and show a greater magnitude of immune effects.
CC The present sequence represents a CpG oligonucleotide used in the method
CC of the invention
XX
SQ Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
|||||||:||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 209
ACF36815/c
ID ACF36815 standard; DNA; 18 BP.
XX
AC ACF36815;
XX
DT 06-NOV-2003 (first entry)
XX
DE Immunostimulatory CpG oligonucleotide, SEQ ID NO:110.
XX
KW Human TLR3; Toll-like receptor 3; TLR3 signal transduction pathway;
KW immunostimulant; drug screening; CpG oligonucleotide; ss.
XX
OS Synthetic.
XX
PN WO2003031573-A2.
XX
PD 17-APR-2003.
XX
PF 03-OCT-2002; 2002WO-US031460.
XX
PR 05-OCT-2001; 2001US-0327520P.
XX
PA (COLE-) COLEY PHARM GMBH.
XX
PI Lipford G;
XX
DR WPI; 2003-393438/37.
XX
PT Identifying an immunostimulatory compound by contacting a functional Toll
PT -like receptor (TLR) 3 with a test compound, and detecting a test
PT response mediated by the TLR3 signal transduction pathway.
XX

```
PS   Disclosure; Page 18; 104pp; English.
XX
CC   The invention relates to a method for identifying an immunostimulatory
CC   compound which comprises contacting a functional Toll-like receptor 3
CC   (TLR3) with a test compound, and detecting a test response mediated by
CC   the TLR3 signal transduction pathway. A test compound is deemed to be
CC   immunostimulatory when the test response exceeds the negative control
CC   sequence, or equals or exceeds the reference response. The method is
CC   useful for identifying compounds that modulate TLR3 signalling activity,
CC   particularly immunostimulatory compounds. The method may also be used in
CC   screening for species specificity of an immunostimulatory compound.
CC   Sequences ACF36744-ACF36822 represent exemplary immunostimulatory CpG
CC   oligonucleotides which may be used to stimulate TLR3 signalling activity
CC   according to the invention
XX
SQ   Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 210
ABZ10531
ID   ABZ10531 standard; DNA; 18 BP.
XX
AC   ABZ10531;
XX
DT   16-JAN-2003  (first entry)
XX
DE   Haematopoietic cell proliferation disorder related oligonucleotide #671.
XX
KW   Human; haematopoietic cell proliferation disorder; cytostatic;
KW   gene therapy; lymphocytic leukaemia; acute myelogenous leukaemia;
KW   cytosine methylation state; probe; primer; ss.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO200277272-A2.
XX
PD   03-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-EP003401.
XX
PR   26-MAR-2001; 2001US-0278333P.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Berlin K,  Braun A,  Distler J,  Guetig D,  Howe A,  Mueller J;
PI   Olek A,  Piepenbrock C,  Adorjan P,  Grabs G,  Lesche R,  Leu E;
PI   Lewin A,  Lipscher E,  Maier S,  Model F,  Mueller V,  Otto T,  Pelet C;
PI   Schwope I,  Ziebarth H;
XX
DR   WPI; 2003-018942/01.
XX
PT   Detecting and differentiating between hematopoietic cell proliferative
PT   disorders, comprises contacting a target nucleic acid with a reagent that
PT   distinguishes between methylated and non-methylated CpG dinucleotides.
XX
PS   Claim 15; Page 48; 117pp; English.
XX
CC   The present invention describes a method for detecting and
CC   differentiating between haematopoietic cell proliferative disorders
CC   associated with at least 1 gene and/or their regulatory regions in a
CC   subject. The method comprises contacting a target nucleic acid in a
CC   biological sample obtained from the subject with at least 1 reagent,
CC   which distinguishes between methylated and non-methylated CpG
CC   dinucleotides within the target nucleic acid. ABZ09861 to ABZ11118
CC   represent specifically claimed nucleotide sequences from the present
CC   invention. Oligonucleotides from the present invention can be used: for
CC   differentiating between healthy haematopoietic cells and proliferative
CC   disorder haematopoietic cells; for differentiating between acute
CC   lymphocytic leukaemia and acute myelogenous leukaemia; as probes for
CC   determining the cytosine methylation state and/or single nucleotide
CC   polymorphisms (SNPs) of haematopoietic cell proliferation disorder
CC   related sequences and their complements; and as primers for the
CC   amplification of haematopoietic cell proliferation disorder related DNA
CC   sequences. The nucleotide sequences from the present invention can also
CC   be used for detecting a predisposition to, differentiation between
CC   subclasses, diagnosis, prognosis, treatment and/or monitoring of
CC   haematopoietic cell proliferative disorders. The present method enables a
CC   highly specific classification of haematopoietic cell proliferative
CC   disorders allowing for improved and informed treatment of patients
XX
SQ   Sequence 18 BP; 4 A; 1 C; 9 G; 4 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         76 AGGGGCTACGAGTGGGAT 93
              ||||| ||||||||||||
Db          1 AGGGGTTACGAGTGGGAT 18


RESULT 211
ABT16737/c
ID   ABT16737 standard; DNA; 18 BP.
XX
AC   ABT16737;
XX
DT   03-APR-2003  (first entry)
XX
DE   bcl-2 PCR primer SEQ ID No 99.
XX
KW   Anti-tumour; DNAzyme; bcl-2 gene; tumour; malignant; chemotherapy;
KW   radiation therapy; enzyme; PCR; primer; ss.
XX
OS   Unidentified.
XX
PN   WO200299090-A1.
XX
PD   12-DEC-2002.
XX
PF   07-JUN-2002; 2002WO-AU000739.
XX
PR   07-JUN-2001; 2001AU-00005527.
XX
PA   (JOHJ ) JOHNSON & JOHNSON RES PTY LTD.
XX
PI   Sun L,  Wang L,  Turner RJ,  Saravolac EG,  Dass CR;
XX
DR   WPI; 2003-140617/13.
XX
PT   Novel DNAzyme useful for treating tumors, and for enhancing the
PT   sensitivity of malignant or virus infected cells to therapy, comprises a
PT   catalytic domain and binding domain contiguous to the catalytic domain.
XX
PS   Example 1; Page 16; 67pp; English.
XX
CC   The invention relates to a DNAzyme which specifically cleaves mRNA
CC   transcribed from a member of the bcl-2 gene family. The DNAzymes comprise
CC   a catalytic domain, binding domains contiguous with the 5' and 3' end of
CC   the catalytic domain, and therefore hybridise with, the two regions
CC   immediately flanking the purine residue of the cleavage site within the
CC   bcl-2 gene family mRNA, at which DNAzyme-catalysed cleavage is desired. A
CC   pharmaceutical composition comprising a DNAzyme of the invention is
CC   useful for treating tumours in a subject, and for enhancing the
CC   sensitivity of malignant or virus infected cells infected cells to
CC   therapy. The DNAzymes are useful in diagnostics, therapeutics,
CC   prophylaxis, research agents and in kits. The DNAzymes are also useful
```

```
CC   for increasing the susceptibility of tumour cells to anti-tumour
CC   therapies such as chemotherapy and radiation therapy. This polynucleotide
CC   sequence represents a bcl-2 PCR primer of the invention
XX
SQ   Sequence 18 BP; 2 A; 2 C; 10 G; 4 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        169 CCCCATCCAGCCGCATCC 186
              |||||| ||||||||||
Db         18 CCCCATACAGCCGCATCC 1


RESULT 212
ACD91427/c
ID   ACD91427 standard; DNA; 18 BP.
XX
AC   ACD91427;
XX
DT   22-SEP-2003  (first entry)
XX
DE   Immunostimulatory CpG containing oligonucleotide #30.
XX
KW   CpG island; ss; HIV infection; gene therapy; vaccine; B-cell;
KW   immunostimulatory; adjuvant.
XX
OS   Synthetic.
XX
PN   US2003050263-A1.
XX
PD   13-MAR-2003.
XX
PF   16-AUG-2001; 2001US-00931583.
XX
PR   15-JUL-1994;   94US-00276358.
PR   07-FEB-1995;   95US-00386063.
PR   08-OCT-1999;   99US-00415142.
XX
PA   (IOWA ) UNIV IOWA RES FOUND.
XX
PI   Krieg AM,  Klinman D,  Steinberg AD;
XX
DR   WPI; 2003-512356/48.
XX
PT   Treating a subject infected with HIV by administering a CpG nucleic acid.
XX
PS   Disclosure; Page 6; 22pp; English.
XX
CC   The invention relates to treating a subject infected with HIV comprising
CC   administering a CpG nucleic acid (e.g. an adjuvant type CpG
CC   oligonucleotide, an immunostimulatory CpG oligonucleotide or a B cell
CC   stimulatory CpG oligonucleotide). The CpG are used as gene therapy
CC   vaccines to treat a subject infected with HIV. The present sequence is an
CC   immunostimulatory CpG oligonucleotide
XX
SQ   Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 213
ACD99387/c
ID   ACD99387 standard; DNA; 18 BP.
XX
AC   ACD99387;
XX
DT   25-SEP-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #73.
XX
KW   Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW   antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW   psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW   inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS   Synthetic.
XX
PN   US2003050268-A1.
XX
PD   13-MAR-2003.
XX
PF   29-MAR-2002; 2002US-00112653.
XX
PR   29-MAR-2001; 2001US-0279642P.
XX
PA   (KRIE/) KRIEG A M.
PA   (BERG/) BERG D J.
XX
PI   Krieg AM,  Berg DJ;
XX
DR   WPI; 2003-521815/49.
XX
PT   Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT   allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT   disease by administering an immunostimulatory nucleic acid.
XX
PS   Disclosure; Page 10; 229pp; English.
XX
CC   The invention describes a method of treating non-allergic inflammatory
CC   disease comprising administering to a subject having or at risk of
CC   developing a non-allergic inflammatory disease an immunostimulatory
CC   nucleic acid for prevention or treatment of the disease. The method is
CC   useful for treating non-allergic inflammatory diseases, such as
CC   psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC   inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC   This sequence represents an immunostimulatory nucleic acid
XX
SQ   Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 214
ACD99707/c
ID   ACD99707 standard; DNA; 18 BP.
XX
AC   ACD99707;
XX
DT   25-SEP-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #393.
XX
KW   Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW   antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW   psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW   inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS   Synthetic.
XX
PN   US2003050268-A1.
XX
PD   13-MAR-2003.
```

XX
PF 29-MAR-2002; 2002US-00112653.
XX
PR 29-MAR-2001; 2001US-0279642P.
XX
PA (KRIE/) KRIEG A M.
PA (BERG/) BERG D J.
XX
PI Krieg AM, Berg DJ;
XX
DR WPI; 2003-521815/49.
XX
PT Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT disease by administering an immunostimulatory nucleic acid.
XX
PS Disclosure; Page 19; 229pp; English.
XX
CC The invention describes a method of treating non-allergic inflammatory
CC disease comprising administering to a subject having or at risk of
CC developing a non-allergic inflammatory disease an immunostimulatory
CC nucleic acid for prevention or treatment of the disease. The method is
CC useful for treating non-allergic inflammatory diseases, such as
CC psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC This sequence represents an immunostimulatory nucleic acid
XX
SQ Sequence 18 BP; 3 A; 8 C; 3 G; 4 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGTACGCTGGGAGA 1

RESULT 215
ACD99386/c
ID ACD99386 standard; DNA; 18 BP.
XX
AC ACD99386;
XX
DT 25-SEP-2003 (first entry)
XX
DE Immunostimulatory nucleic acid #72.
XX
KW Immunostimulatory; antiinflammatory; dermatological; antipsoriatic;
KW antiulcer; gene therapy; vaccine; non-allergic inflammatory disease;
KW psoriasis; eczema; allergic contact dermatitis; latex dermatitis;
KW inflammatory bowel disease; ulcerative colitis; Crohn's disease; ss.
XX
OS Synthetic.
XX
PN US2003050268-A1.
XX
PD 13-MAR-2003.
XX
PF 29-MAR-2002; 2002US-00112653.
XX
PR 29-MAR-2001; 2001US-0279642P.
XX
PA (KRIE/) KRIEG A M.
PA (BERG/) BERG D J.
XX
PI Krieg AM, Berg DJ;
XX
DR WPI; 2003-521815/49.
XX
PT Treating non-allergic inflammatory diseases, such as psoriasis, eczema,
PT allergic contact dermatitis, latex dermatitis or inflammatory bowel
PT disease by administering an immunostimulatory nucleic acid.
XX
PS Disclosure; Page 10; 229pp; English.
XX
CC The invention describes a method of treating non-allergic inflammatory
CC disease comprising administering to a subject having or at risk of
CC developing a non-allergic inflammatory disease an immunostimulatory
CC nucleic acid for prevention or treatment of the disease. The method is
CC useful for treating non-allergic inflammatory diseases, such as
CC psoriasis, eczema, allergic contact dermatitis, latex dermatitis or
CC inflammatory bowel disease e.g., ulcerative colitis or Crohn's disease.
CC This sequence represents an immunostimulatory nucleic acid
XX
SQ Sequence 18 BP; 3 A; 8 C; 4 G; 3 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCTCGCTGGGAGA 1

RESULT 216
ADB36779/c
ID ADB36779 standard; DNA; 18 BP.
XX
AC ADB36779;
XX
DT 04-DEC-2003 (first entry)
XX
DE Immunostimulatory nucleic acid #393.
XX
KW ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW hypo-responsive subject; immunostimulatory.
XX
OS Synthetic.
XX
PN US2003087848-A1.
XX
PD 08-MAY-2003.
XX
PF 02-FEB-2001; 2001US-00776479.
XX
PR 03-FEB-2000; 2000US-0179991P.
XX
PA (BRAT/) BRATZLER R L.
PA (PETE/) PETERSEN D M.
PA (FOUR/) FOURON Y.
XX
PI Bratzler RL, Petersen DM, Fouron Y;
XX
DR WPI; 2003-657977/62.
XX
PT Treating and/or preventing allergy or asthma using an immunostimulatory
PT nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS Disclosure; Page 11; 221pp; English.
XX
CC The invention relates to a method of treating or preventing allergy or
CC asthma which comprises administering to a subject a poly-G nucleic acid
CC in an aerosol formulation. The methods and compositions of the present
CC invention are useful for diagnosing and/or treating asthma and allergy
CC especially in a hypo-responsive subject. The present sequence represents
CC an immunostimulatory nucleic acid of the invention.
XX
SQ Sequence 18 BP; 3 A; 8 C; 3 G; 4 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18

```
                  |||||| ||||||||||
Db         18 ATGGCGTACGCTGGGAGA 1


RESULT 217
ADB36456/c
ID   ADB36456 standard; DNA; 18 BP.
XX
AC   ADB36456;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #70.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 6; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 218
ADB36455/c
ID   ADB36455 standard; DNA; 18 BP.
XX
AC   ADB36455;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Immunostimulatory nucleic acid #69.
XX
KW   ds; allergy; asthma; poly-G nucleic acid; aerosol formulation;
KW   hypo-responsive subject; immunostimulatory.
XX
OS   Synthetic.
XX
PN   US2003087848-A1.
XX
PD   08-MAY-2003.
XX
PF   02-FEB-2001; 2001US-00776479.
XX
PR   03-FEB-2000; 2000US-0179991P.
XX
PA   (BRAT/) BRATZLER R L.
PA   (PETE/) PETERSEN D M.
PA   (FOUR/) FOURON Y.
XX
PI   Bratzler RL,  Petersen DM,  Fouron Y;
XX
DR   WPI; 2003-657977/62.
XX
PT   Treating and/or preventing allergy or asthma using an immunostimulatory
PT   nucleic acid alone or in combination with an asthma/allergy medicament.
XX
PS   Disclosure; Page 6; 221pp; English.
XX
CC   The invention relates to a method of treating or preventing allergy or
CC   asthma which comprises administering to a subject a poly-G nucleic acid
CC   in an aerosol formulation. The methods and compositions of the present
CC   invention are useful for diagnosing and/or treating asthma and allergy
CC   especially in a hypo-responsive subject. The present sequence represents
CC   an immunostimulatory nucleic acid of the invention.
XX
SQ   Sequence 18 BP; 3 A; 8 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCTCGCTGGGAGA 1


RESULT 219
ADC70043
ID   ADC70043 standard; DNA; 18 BP.
XX
AC   ADC70043;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Primer oligo used for analysing CpG islands in genomic DNA (SeqID 532).
XX
KW   PCR; primer; ss; lung cell proliferative disorder; CpG dinucleotide;
KW   adenocarcinoma; squamous cell carcinoma; cytostatic; probe; PNA-oligomer;
KW   cytosine methylation state.
XX
OS   Unidentified.
XX
PN   WO2003052135-A2.
XX
PD   26-JUN-2003.
XX
PF   10-DEC-2002; 2002WO-EP014026.
XX
PR   14-DEC-2001; 2001DE-01061625.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Burger M,  Field JK,  Genc B,  Liloglou T,  Lipscher E,  Maier S;
PI   Nimmrich I;
XX
DR   WPI; 2003-533029/50.
XX
PT   Detecting and differentiating cytosine methylation state of genomic DNA,
PT   useful for diagnosing, treating prognosticating and/or monitoring lung
PT   cell proliferative disorders e.g. adenocarcinoma and squamous cell
```

PT carcinoma.
XX
PS Claim 15; SEQ ID NO 532; 58pp; English.
XX
CC This invention relates to a novel method for detecting and
CC differentiating between lung cell proliferative disorders associated with
CC at least one gene and/or their regulatory regions. Specifically, it
CC refers to a method comprising contacting a target nucleic acid in a
CC biological sample with at least one reagent, wherein the reagent is able
CC to distinguish between methylated and non-methylated CpG dinucleotides
CC present in the target DNA. As such, it is possible to further
CC differentiate and diagnose medical conditions including adenocarcinoma
CC and squamous cell carcinoma, and their respective adjacent lung tissue.
CC The present invention describes cytostatic oligomers and PNA-oligomers
CC that are useful as probes for determining the cytosine methylation state
CC or single nucleotide polymorphisms (SNPs) of the target sequence. This
CC oligonucleotide sequence is a primer oligomer used for the analysis of
CC CpG positions within genomic DNA, used in an exemplification of the
CC invention.
XX
SQ Sequence 18 BP; 4 A; 1 C; 9 G; 4 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 76 AGGGGCTACGAGTGGGAT 93
||||| ||||||||||
Db 1 AGGGGTTACGAGTGGGAT 18

RESULT 220
AAD60227/c
ID AAD60227 standard; DNA; 18 BP.
XX
AC AAD60227;
XX
DT 18-DEC-2003 (first entry)
XX
DE Oligonucleotide 1836 used for activating dendritic cells.
XX
KW Dendritic cell activation; cancer immunotherapy; infectious disease;
KW allergy; cell therapy; ss.
XX
OS Unidentified.
XX
PN US2003100527-A1.
XX
PD 29-MAY-2003.
XX
PF 03-JUN-2002; 2002US-00161229.
XX
PR 15-JUL-1994; 94US-00276358.
PR 07-FEB-1995; 95US-00386063.
PR 30-OCT-1996; 96US-00738652.
PR 30-OCT-1997; 97US-00960774.
PR 13-NOV-1998; 98US-00191170.
XX
PA (IOWA) UNIV IOWA RES FOUND.
XX
PI Krieg AM, Hartmann G;
XX
DR WPI; 2003-708674/67.
XX
PT Activating a dendritic cell useful for treating cancer, infectious
PT diseases or allergies, comprises contacting the dendritic cell with an
PT amount of an isolated nucleic acid that contains at least one
PT unmethylated CpG dinucleotide.
XX
PS Example 6; Page 18; 51pp; English.
XX
CC The invention relates to a method of activating a dendritic cell. The
CC method involves contacting the dendritic cell with an isolated nucleic
CC acid containing at least one unmethylated CpG dinucleotide, where the
CC nucleic acid is about 8-80 bases in length, in an amount that activates
CC the dendritic cell. The compositions and methods of the invention are
CC useful for cancer immunotherapy, or for treating an infectious disease
CC (e.g. viral, bacterial or fungal infections) or allergy. The invention is
CC useful in cell therapy. The present sequence is an oligonucleotide used
CC for activating dendritic cells
XX
SQ Sequence 18 BP; 2 A; 9 C; 4 G; 3 T; 0 U; 0 Other;

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 1.1e+02;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 221
ADE84393
ID ADE84393 standard; DNA; 18 BP.
XX
AC ADE84393;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human lymphoid cell proliferative disorder gene CpG analysis oligo #99.
XX
KW lymphoid cell proliferative disorder; methylation;
KW methylated CpG dinucleotide; single nucleotide polymorphism; SNP;
KW diffuse large B-cell lymphoma; mantle cell lymphoma;
KW chronic lymphocytic leukemia; small lymphocytic lymphoma;
KW follicular lymphoma; diagnosis; prognosis; primer; ss.
XX
OS Homo sapiens.
XX
PN WO2003044226-A2.
XX
PD 30-MAY-2003.
XX
PF 25-NOV-2002; 2002WO-EP013265.
XX
PR 23-NOV-2001; 2001DE-01057491.
PR 28-DEC-2001; 2001DE-01064501.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Burger M, Caldwell C, Genc B, Becker E, Maier S, Nimmrich I;
XX
DR WPI; 2003-457621/43.
XX
PT Detecting and differentiating between lymphoid cell proliferative
PT disorders comprises contacting a target nucleic acid with at least one
PT reagent that distinguishes between methylated and non-methylated CpG
PT dinucleotides.
XX
PS Claim 30; SEQ ID NO 389; 448pp; English.
XX
CC The invention relates to a method of detecting and differentiating
CC between lymphoid cell proliferative disorders associated with at least
CC one gene and/or their regulatory regions in a subject by contacting a
CC target nucleic acid in a biological sample obtained from the subject with
CC at least one reagent or series of reagents that distinguish between
CC methylated and non-methylated CpG dinucleotides within the target nucleic
CC acid. The genes and/or their regulatory regions are preferably selected
CC from MDR1, CSNK2B, EGR4, AR, CDK4, RB2, CDC25A, GPIb beta, MYOD1, CDH3,
CC MYCL1, ELK1, ABL1, APC, BCL2, CDH1, CDKN1A, CDKN1B, CDKN2a, CDKN2B, FOS,
CC GSTP1, HIC-1, MGMT, MLH1, MOS, MYC, PTEN, RBL2, TGFBR2, TP73, CDKNIC,
CC GSK3beta, ESR1, APAF1, BAK1, BAX or HOXA5. Oligomers, peptide nucleic
CC acid (PNA)-oligomers and/or isolated nucleic acids based on the sequences
CC of the genes are useful for detecting the methylation state of all the
CC CpG dinucleotides within one or more the sequences, or their complements,

```
CC   for determining the cytosine methylation state and or single nucleotide
CC   polymorphisms (SNPs), and for differentiating at least two of the medical
CC   conditions such as diffuse large B-cell lymphoma, mantle cell lymphoma,
CC   chronic lymphocytic leukemia, small lymphocytic lymphoma and follicular
CC   lymphoma. They are also useful for detecting of a predisposition to,
CC   differentiation between subclasses, diagnosis, prognosis, treating and/or
CC   monitoring of lymphoid cell proliferative disorder. This sequence
CC   represents an oligonucleotide used to analyse of CpG positions within the
CC   above mentioned genes.
XX
SQ   Sequence 18 BP; 4 A; 1 C; 9 G; 4 T; 0 U; 0 Other;

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 1.1e+02;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         76 AGGGGCTACGAGTGGGAT 93
              ||||| ||||||||||||
Db          1 AGGGGTTACGAGTGGGAT 18


RESULT 222
AAQ51953
ID   AAQ51953 standard; RNA; 16 BP.
XX
AC   AAQ51953;
XX
DT   25-MAR-2003  (revised)
DT   26-MAY-1994  (first entry)
XX
DE   BCL-2 mRNA ribozyme cleavable nucleotide (1719).
XX
KW   Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW   resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW   actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW   adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW   human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW   B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
KW   neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW   hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
XX
OS   Homo sapiens.
XX
PN   WO9323057-A1.
XX
PD   25-NOV-1993.
XX
PF   13-MAY-1993;   93WO-US004573.
XX
PR   14-MAY-1992;   92US-00882822.
PR   14-MAY-1992;   92US-00882885.
PR   26-AUG-1992;   92US-00936110.
PR   26-AUG-1992;   92US-00936421.
PR   26-AUG-1992;   92US-00936422.
PR   26-AUG-1992;   92US-00936531.
PR   26-AUG-1992;   92US-00936532.
PR   07-DEC-1992;   92US-00987131.
PR   19-JAN-1993;   93US-00006122.
PR   19-JAN-1993;   93US-00008910.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Draper KG;
XX
DR   WPI; 1993-386203/48.
XX
PT   New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT   with tumours or mRNA expressed from gene encoding multiple drug
PT   resistance.
XX
PS   Claim 3; Fig 6; 69pp; English.
XX
CC   The sequences given in AAQ51825-2266 represent areas of mRNAs which are
CC   associated with development or maintenance of chronic myelogenous
CC   leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC   lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC   leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC   The full length mRNAs containing these target sequences, encode aberant
CC   cellular proteins which are able to control cellular proliferation and
CC   are directly linked to a leukemic phenotype. These target sequences are
CC   identified by the ribozyme of the invention. The ribozymes is formed in a
CC   hammerhead motif, but may also be formed in the motif of a hairpin,
CC   hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC   may be used to inhibit the development or expression of a transformed
CC   phenotype in man and other animals by modulating expression of the
CC   corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC   and transformed cells elicits inhibition of the transformed state.
CC   Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC   mechanism of drug resistance used by transformed cells and thus enhances
CC   drug therapies for tumours. The ribozymes may also be used to study
CC   genetic drift and mutations within cells. (Updated on 25-MAR-2003 to
CC   correct PN field.)
XX
SQ   Sequence 16 BP; 1 A; 7 C; 5 G; 0 T; 3 U; 0 Other;

  Query Match             2.6%;  Score 16;  DB 1;  Length 16;
  Best Local Similarity   81.2%;  Pred. No. 1.1e+02;
  Matches   13;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        261 CCCGGTGCCACCTGTG 276
              |||||:||||||:|:|
Db          1 CCCGGUGCCACCUGUG 16


RESULT 223
ABK90361/c
ID   ABK90361 standard; DNA; 16 BP.
XX
AC   ABK90361;
XX
DT   21-OCT-2002  (first entry)
XX
DE   Bcl-2-targeting antisense oligonucleotide #30.
XX
KW   Antisense; ss; probe; Bcl-2; cell proliferative disorder; cancer; CRE;
KW   cAMP response element; bacterial infection; viral infection;
KW   inflammation; anaphylaxis; allergy; arthritis; asthma; cytostatic;
KW   autoimmune disorder; parasitic infection; virucide; hyperplasia;
KW   tumourigenesis; hepatitis B infection; human.
XX
OS   Homo sapiens.
XX
PN   WO200257480-A2.
XX
PD   25-JUL-2002.
XX
PF   22-JAN-2002; 2002WO-US001967.
XX
PR   22-JAN-2001; 2001US-0263244P.
XX
PA   (GENT-) GENTA INC.
XX
PI   Klem RE;
XX
DR   WPI; 2002-590754/63.
XX
PT   Hybrid oligomer comprises a cyclic AMP response element sequence and a
PT   sequence that hybridizes to the bcl-2 pre-mRNA or mRNA useful for
PT   preventing or treating cell-proliferative disorders e.g., cancer.
XX
PS   Disclosure; Page 13; 78pp; English.
XX
CC   The invention relates to a hybrid oligomer comprising a cyclic AMP
CC   response element (CRE) sequence and a sequence that hybridises to the bcl
CC   -2 pre-mRNA or mRNA. Also included are: (1) inhibiting the growth of
CC   cancer cells in vitro, which comprises contacting the cancer cells with a
```

```
CC   hybrid oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer;
CC   (2) treating or preventing cancer in a human, which comprises
CC   administering a hybrid oligomer or a bcl-2 antisense oligomer and a CRE
CC   decoy oligomer; and (3) a pharmaceutical composition comprising a hybrid
CC   oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer and a
CC   carrier. The pharmaceutical composition of the invention is useful for
CC   preventing or treating cell-proliferative disorders e.g., cancer,
CC   hyperplasia or tumourigenesis and also bacterial infection, viral
CC   infection, inflammation, anaphylaxis, allergy, arthritis, asthma,
CC   autoimmune disorders and parasitic infection. The CRE decoy oligomer and
CC   bcl-2 antisense oligomer are also useful for preventing or treating
CC   hepatitis B virus infection. The hybrid oligomers can also be used for
CC   screening candidate transcription factors or other molecules e.g., gene
CC   regulatory proteins or for diagnostic assays. The present sequence is a
CC   Bcl-2 antisense oligonucleotide
XX
SQ   Sequence 16 BP; 1 A; 8 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.6%;  Score 16;  DB 1;  Length 16;
  Best Local Similarity   100.0%;  Pred. No. 1.1e+02;
  Matches   16;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          3 GGCGCACGCTGGGAGA 18
              ||||||||||||||||
Db         16 GGCGCACGCTGGGAGA 1


RESULT 224
AAC65070/c
ID   AAC65070 standard; DNA; 17 BP.
XX
AC   AAC65070;
XX
DT   12-FEB-2001  (first entry)
XX
DE   Human bcl genes antisense sequence #14.
XX
KW   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
KW   protein kinase C; PKC; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061810-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009293.
XX
PR   08-APR-1999;   99US-0128377P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD,  Riley TA;
XX
DR   WPI; 2000-679502/66.
XX
PT   Antisense oligonucleotides containing degenerate and/or universal bases,
PT   and modified backbone linkages is useful to target therapeutic genes,
PT   preferably anti-apoptosis or chemoresistance genes.
XX
PS   Example 7; Fig 3; 32pp; English.
XX
CC   The present invention is concerned with antisense oligonucleotides
CC   containing a number of degenerate bases and with a modified backbone
CC   which can be used to direct cleavage of target RNA molecules. The use of
CC   degenerate bases reduces the risk of immune activation following
CC   injection into animals, which causes deleterious side effects associated
CC   with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC   C65077 are antisense oligonucleotides and PCR primers used in assays to
CC   demonstrate the effects of the sequences of the invention
XX
SQ   Sequence 17 BP; 2 A; 2 C; 9 G; 3 T; 0 U; 1 Other;

  Query Match             2.6%;  Score 16;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.1e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        170 CCCATCCAGCCGCATCC 186
              ||||| ||||||||||
Db         17 CCCATNCAGCCGCATCC 1


RESULT 225
AAC65074/c
ID   AAC65074 standard; DNA; 16 BP.
XX
AC   AAC65074;
XX
DT   12-FEB-2001  (first entry)
XX
DE   Human bcl genes antisense sequence #18.
XX
KW   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
KW   protein kinase C; PKC; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061810-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009293.
XX
PR   08-APR-1999;   99US-0128377P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD,  Riley TA;
XX
DR   WPI; 2000-679502/66.
XX
PT   Antisense oligonucleotides containing degenerate and/or universal bases,
PT   and modified backbone linkages is useful to target therapeutic genes,
PT   preferably anti-apoptosis or chemoresistance genes.
XX
PS   Example 7; Fig 3; 32pp; English.
XX
CC   The present invention is concerned with antisense oligonucleotides
CC   containing a number of degenerate bases and with a modified backbone
CC   which can be used to direct cleavage of target RNA molecules. The use of
CC   degenerate bases reduces the risk of immune activation following
CC   injection into animals, which causes deleterious side effects associated
CC   with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC   C65077 are antisense oligonucleotides and PCR primers used in assays to
CC   demonstrate the effects of the sequences of the invention
XX
SQ   Sequence 16 BP; 3 A; 2 C; 9 G; 1 T; 0 U; 1 Other;

  Query Match             2.5%;  Score 15.6;  DB 1;  Length 16;
  Best Local Similarity   93.8%;  Pred. No. 1.2e+02;
  Matches   15;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        278 TCCACCTGGCCCTCCG 293
              |||||||:|||||||
Db         16 TCCACCTGRCCCTCCG 1


RESULT 226
AAX74686/c
ID   AAX74686 standard; RNA; 17 BP.
XX
AC   AAX74686;
XX
DT   28-JUL-1999  (first entry)
XX
DE   Mouse flt-1 VEGF receptor hammerhead ribozyme substrate #214.
```

```
XX
KW   Vascular endothelial growth factor receptor; VEGF receptor; flt-1; flk-1;
KW   KDR; hammerhead ribozyme; hairpin ribozyme; cleavage;
KW   tumour angiogenesis; psoriasis; rheumatoid arthritis; ocular disease;
KW   fms-like tyrosine kinase 1; kinase insert domain containing receptor;
KW   foetal liver kinase 1; ss.
XX
OS   Mus sp.
XX
PN   WO9715662-A2.
XX
PD   01-MAY-1997.
XX
PF   25-OCT-1996;   96WO-US017480.
XX
PR   26-OCT-1995;   95US-0005974P.
PR   11-JAN-1996;   96US-00584040.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (CHIR ) CHIRON CORP.
XX
PI   Pavco P,  Mcswiggen J,  Stinchcomb D,  Escobedo J;
XX
DR   WPI; 1997-259017/23.
XX
PT   Nucleic acid molecule modulating VEGF receptor(s) gene expression or mRNA
PT   stability - useful for treating e.g. tumour angiogenesis, psoriasis,
PT   rheumatoid arthritis, etc., in a human patient.
XX
PS   Claim 4; Page 161; 218pp; English.
XX
CC   The present invention describes nucleic acid molecules which modulate the
CC   synthesis, expression and/or stability of a mRNA encoding 1 or more
CC   receptors of vascular endothelial growth factor (VEGF). A patient
CC   (preferably human) having a condition associated with the level of the
CC   fms-like tyrosine kinase 1 (flt-1), kinase insert domain containing
CC   receptor (KDR) and/or foetal liver kinase 1 (flk-1) (e.g. tumour
CC   angiogenesis, ocular diseases, psoriasis and rheumatoid arthritis) can be
CC   treated by administering the nucleic acid molecule or the expression
CC   vector to the patient. AAX67275 to AAX75752 represent specific examples
CC   of nucleic acid molecules from the present invention
XX
SQ   Sequence 17 BP; 2 A; 6 C; 2 G; 0 T; 7 U; 0 Other;

  Query Match              2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.3e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        563 GGATCCAGGATAACGGA 579
              ||||||||||||| |||
Db         17 GGATCCAGGATAAAGGA 1


RESULT 227
ABZ65351/c
ID   ABZ65351 standard; RNA; 17 BP.
XX
AC   ABZ65351;
XX
DT   21-MAR-2003  (first entry)
XX
DE   Human HER2 DNAzyme substrate #808.
XX
KW   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW   enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW   anti-rheumatic; cancer; AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO200297114-A2.
XX
PD   05-DEC-2002.
XX
PF   29-MAY-2002; 2002WO-US016840.
XX
PR   29-MAY-2001; 2001US-0294140P.
PR   06-JUN-2001; 2001US-0296249P.
PR   10-SEP-2001; 2001US-0318471P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J;
XX
DR   WPI; 2003-140484/13.
XX
PT   Novel short interfering RNA and enzymatic nucleic acid useful for
PT   treating cancer, modulates the expression of a nucleic acid encoding
PT   HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences.
XX
PS   Claim 4; Page 148; 185pp; English.
XX
CC   The invention relates to a novel short interfering RNA (siRNA) nucleic
CC   acid molecule or an enzymatic nucleic acid molecule, that modulates
CC   expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC   human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC   acid molecule of the invention has cytostatic, anti-HIV, and anti-
CC   rheumatic activity. The nucleic acid molecules are useful for reducing
CC   HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are
CC   also useful for treating breast, ovarian, colorectal, lung, prostate,
CC   bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences
CC   shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531, ABZ66520 - ABZ66524,
CC   ABZ66530 - ABZ66585 represent substrate/target sequences for the human
CC   ribozymes of the invention
XX
SQ   Sequence 17 BP; 5 A; 10 C; 1 G; 0 T; 1 U; 0 Other;

  Query Match              2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.3e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        462 TGGGGTCATGTGTGTGG 478
              ||||||||||||||| ||
Db         17 TGGGGTCATGTGTGGGG 1


RESULT 228
ABZ65350/c
ID   ABZ65350 standard; RNA; 17 BP.
XX
AC   ABZ65350;
XX
DT   21-MAR-2003  (first entry)
XX
DE   Human HER2 DNAzyme substrate #807.
XX
KW   Human; ribozyme; short interfering RNA; siRNA; HER2; K-Ras;
KW   enzymatic nucleic acid; H-Ras; N-Ras; HIV; cytostatic; anti-HIV;
KW   anti-rheumatic; cancer; AIDS; ss.
XX
OS   Homo sapiens.
XX
PN   WO200297114-A2.
XX
PD   05-DEC-2002.
XX
PF   29-MAY-2002; 2002WO-US016840.
XX
PR   29-MAY-2001; 2001US-0294140P.
PR   06-JUN-2001; 2001US-0296249P.
PR   10-SEP-2001; 2001US-0318471P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Mcswiggen J;
XX
DR   WPI; 2003-140484/13.
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XX
PT   Novel short interfering RNA and enzymatic nucleic acid useful for
PT   treating cancer, modulates the expression of a nucleic acid encoding
PT   HER2, K-Ras, H-Ras, N-Ras, and human deficiency virus sequences.
XX
PS   Claim 4; Page 148; 185pp; English.
XX
CC   The invention relates to a novel short interfering RNA (siRNA) nucleic
CC   acid molecule or an enzymatic nucleic acid molecule, that modulates
CC   expression of a nucleic acid molecule encoding HER2, K-Ras, H-Ras, N-Ras,
CC   human immunodeficiency virus (HIV) or a component of HIV. The nucleic
CC   acid molecule of the invention has cytostatic, anti-HIV, and anti-
CC   rheumatic activity. The nucleic acid molecules are useful for reducing
CC   HER2, K-Ras, H-Ras, and HIV activity in a cell. The nucleic acids are
CC   also useful for treating breast, ovarian, colorectal, lung, prostate,
CC   bladder, or pancreatic cancer, and HIV infection, and AIDS. The sequences
CC   shown in ABZ59889 - ABZ62216, ABZ64544 - ABZ65531, ABZ66520 - ABZ66524,
CC   ABZ66530 - ABZ66585 represent substrate/target sequences for the human
CC   ribozymes of the invention
XX
SQ   Sequence 17 BP; 4 A; 10 C; 1 G; 0 T; 2 U; 0 Other;

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.3e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        464 GGGTCATGTGTGTGGAG 480
              ||||||||||||  ||||
Db         17 GGGTCATGTGTGGGGAG 1


RESULT 229
ACD65630/c
ID   ACD65630 standard; RNA; 17 BP.
XX
AC   ACD65630;
XX
DT   30-SEP-2003  (first entry)
XX
DE   HCV minus strand DNAzyme substrate sequence #2149.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 313; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 2 A; 7 C; 7 G; 0 T; 1 U; 0 Other;

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.3e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        248 GGCCTGCGCTCAGCCCG 264
              ||||||  ||||||||||
Db         17 GGCCTGGGCTCAGCCCG 1


RESULT 230
ACD57039
ID   ACD57039 standard; RNA; 17 BP.
XX
AC   ACD57039;
XX
DT   23-SEP-2003  (first entry)
XX
DE   HCV DNAzyme substrate sequence #129.
XX
KW   Nucleic acid molecule; Hepatitis C virus; HCV; Hepatitis B virus; HBV;
KW   RNA stability; RNA expression; RNA synthesis; antisense;
KW   enzymatic nucleic acid; hammerhead ribozyme; DNAzyme; inozyme; zinzyme;
KW   amberzyme; G-cleaver ribozyme; decoy molecule; aptamer;
KW   HBV reverse transcriptase; Enhancer I region; viral replication;
KW   degenerative; disease state; HBV infection; HCV infection; cirrhosis;
KW   liver failure; hepatocellular carcinoma; hepatotropic; cytostatic;
KW   virucide; antiinflammatory; substrate; ss.
XX
OS   Hepatitis C virus.
XX
PN   WO200281494-A1.
XX
PD   17-OCT-2002.
XX
PF   26-MAR-2002; 2002WO-US009187.
XX
PR   26-MAR-2001; 2001US-00817879.
PR   08-JUN-2001; 2001US-00877478.
PR   08-JUN-2001; 2001US-0296876P.
PR   24-OCT-2001; 2001US-0335059P.
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PR   05-DEC-2001; 2001US-0337055P.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
PA   (BLAT/) BLATT L.
PA   (MACE/) MACEJAK D.
PA   (MCSW/) MCSWIGGEN J.
PA   (MORR/) MORRISSEY D.
PA   (PAVC/) PAVCO P.
PA   (LEEP/) LEE P.
PA   (DRAP/) DRAPER K.
PA   (ROBE/) ROBERTS E.
XX
PI   Blatt L,  Macejak D,  Mcswiggen J,  Morrissey D,  Pavco P,  Lee P;
PI   Draper K,  Roberts E;
XX
DR   WPI; 2003-229207/22.
XX
PT   Novel compound useful for treating cirrhosis, liver failure,
PT   hepatocellular carcinoma, or condition associated with hepatitis C virus
PT   infection.
XX
PS   Claim 1; Page 236; 387pp; English.
XX
CC   The present invention relates to nucleic acid molecules which modulate
CC   the synthesis, expression and/or stability of Hepatitis C virus (HCV) or
CC   Hepatitis B virus (HBV) RNA. The nucleic acid molecules include antisense
CC   and enzymatic nucleic acids such as hammerhead ribozymes, DNAzymes,
CC   inozymes, zinzymes, amberzymes, and G-cleaver ribozymes. Also disclosed
CC   are nucleic acid decoy molecules and aptamers that bind to HBV reverse
CC   transcriptase and/or HBV reverse transcriptase primer sequences, as well
CC   as oligonucleotides that specifically bind the Enhancer I region of HBV
CC   DNA. The nucleic acids may be used to modulate the expression of HBV
CC   genes and HBV viral replication. Also disclosed is a method for screening
CC   compounds and/or potential therapies directed against HBV, and compounds
CC   that modulate the expression and/or replication of HCV. The compounds and
CC   methods of the invention are useful for the treatment of degenerative and
CC   disease states related to HBV and HCV infection, replication and gene
CC   expression such as cirrhosis, liver failure, and hepatocellular
CC   carcinoma. The present sequence represents a substrate for one of the HCV
CC   DNAzyme or minus strand DNAzyme sequences disclosed in the present
CC   invention
XX
SQ   Sequence 17 BP; 1 A; 7 C; 7 G; 0 T; 2 U; 0 Other;

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 1.3e+02;
  Matches   14;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        247 GGGCCTGCGCTCAGCCC 263
              |||||:| ||:||||||
Db          1 GGGCCUGGGCUCAGCCC 17


RESULT 231
ABK90360/c
ID   ABK90360 standard; DNA; 15 BP.
XX
AC   ABK90360;
XX
DT   21-OCT-2002  (first entry)
XX
DE   Bcl-2-targeting antisense oligonucleotide #29.
XX
KW   Antisense; ss; probe; Bcl-2; cell proliferative disorder; cancer; CRE;
KW   cAMP response element; bacterial infection; viral infection;
KW   inflammation; anaphylaxis; allergy; arthritis; asthma; cytostatic;
KW   autoimmune disorder; parasitic infection; virucide; hyperplasia;
KW   tumourigenesis; hepatitis B infection; human.
XX
OS   Homo sapiens.
XX
PN   WO200257480-A2.
XX
PD   25-JUL-2002.
XX
PF   22-JAN-2002; 2002WO-US001967.
XX
PR   22-JAN-2001; 2001US-0263244P.
XX
PA   (GENT-) GENTA INC.
XX
PI   Klem RE;
XX
DR   WPI; 2002-590754/63.
XX
PT   Hybrid oligomer comprises a cyclic AMP response element sequence and a
PT   sequence that hybridizes to the bcl-2 pre-mRNA or mRNA useful for
PT   preventing or treating cell-proliferative disorders e.g., cancer.
XX
PS   Disclosure; Page 13; 78pp; English.
XX
CC   The invention relates to a hybrid oligomer comprising a cyclic AMP
CC   response element (CRE) sequence and a sequence that hybridises to the bcl
CC   -2 pre-mRNA or mRNA. Also included are: (1) inhibiting the growth of
CC   cancer cells in vitro, which comprises contacting the cancer cells with a
CC   hybrid oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer;
CC   (2) treating or preventing cancer in a human, which comprises
CC   administering a hybrid oligomer or a bcl-2 antisense oligomer and a CRE
CC   decoy oligomer; and (3) a pharmaceutical composition comprising a hybrid
CC   oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer and a
CC   carrier. The pharmaceutical composition of the invention is useful for
CC   preventing or treating cell-proliferative disorders e.g., cancer,
CC   hyperplasia or tumourigenesis and also bacterial infection, viral
CC   infection, inflammation, anaphylaxis, allergy, arthritis, asthma,
CC   autoimmune disorders and parasitic infection. The CRE decoy oligomer and
CC   bcl-2 antisense oligomer are also useful for preventing or treating
CC   hepatitis B virus infection. The hybrid oligomers can also be used for
CC   screening candidate transcription factors or other molecules e.g., gene
CC   regulatory proteins or for diagnostic assays. The present sequence is a
CC   Bcl-2 antisense oligonucleotide
XX
SQ   Sequence 15 BP; 1 A; 7 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.4%;  Score 15;  DB 1;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   15;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          4 GCGCACGCTGGGAGA 18
              |||||||||||||||
Db         15 GCGCACGCTGGGAGA 1


RESULT 232
AAC65071/c
ID   AAC65071 standard; DNA; 16 BP.
XX
AC   AAC65071;
XX
DT   12-FEB-2001  (first entry)
XX
DE   Human bcl genes antisense sequence #15.
XX
KW   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
KW   protein kinase C; PKC; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061810-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009293.
XX
PR   08-APR-1999;   99US-0128377P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
```

```
XX
PI   Brown BD,  Riley TA;
XX
DR   WPI; 2000-679502/66.
XX
PT   Antisense oligonucleotides containing degenerate and/or universal bases,
PT   and modified backbone linkages is useful to target therapeutic genes,
PT   preferably anti-apoptosis or chemoresistance genes.
XX
PS   Example 7; Fig 3; 32pp; English.
XX
CC   The present invention is concerned with antisense oligonucleotides
CC   containing a number of degenerate bases and with a modified backbone
CC   which can be used to direct cleavage of target RNA molecules. The use of
CC   degenerate bases reduces the risk of immune activation following
CC   injection into animals, which causes deleterious side effects associated
CC   with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC   C65077 are antisense oligonucleotides and PCR primers used in assays to
CC   demonstrate the effects of the sequences of the invention
XX
SQ   Sequence 16 BP; 1 A; 5 C; 7 G; 2 T; 0 U; 1 Other;

  Query Match             2.4%;  Score 15;  DB 1;  Length 16;
  Best Local Similarity   93.8%;  Pred. No. 1.3e+02;
  Matches   15;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        181 GCATCCCGCGACCCGG 196
              ||||||||  |||||||
Db         16 GCATCCCGNGACCCGG 1


RESULT 233
AAD15637/c
ID   AAD15637 standard; DNA; 20 BP.
XX
AC   AAD15637;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #11.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 2 A; 5 C; 11 G; 2 T; 0 U; 0 Other;

  Query Match             2.3%;  Score 14.2;  DB 1;  Length 20;
  Best Local Similarity   84.2%;  Pred. No. 2e+02;
  Matches   16;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        300 CGGCGACGACTTCTCCCGC 318
              |||||  | ||  |||||||||
Db         19 CGGCGCCCACATCTCCCGC 1


RESULT 234
AAA95741
ID   AAA95741 standard; DNA; 14 BP.
XX
AC   AAA95741;
XX
DT   14-FEB-2001  (first entry)
XX
DE   PKCalpha primer-pair amplification primer FUP112.
XX
KW   Amplification; primer pair; anchor; reverse transcriptase;
KW   DNA polymerase; complementation; stem structure; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061807-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009230.
XX
PR   08-APR-1999;   99US-0128378P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD;
XX
DR   WPI; 2001-031588/04.
XX
PT   Novel primer pairs useful for amplifying and sequencing nucleic acid
PT   sequences, comprising oligonucleotide anchors and primers.
XX
PS   Example 1; Page 8; 21pp; English.
XX
CC   The invention relates to amplifying a target nucleic acid sequence using
CC   a primer pair comprising an oligonucleotide anchor and primer, where the
CC   anchor is not a substrate for reverse transcriptase or DNA polymerase
CC   and/or has a 3' end which is not capable of priming nucleic acid
CC   synthesis, the primer part is a substrate for reverse transcriptase or
CC   DNA polymerase and both the anchor and the primer include a region of
CC   complementary nucleotides capable of associating to form a stem
CC   structure. The method comprises amplifying the target nucleic acid
CC   sequence with paired forward anchor (FA)-forward primer (FP), and reverse
CC   anchor (RA-reverse primer (RP), where the FA/FP form a first primer pair
CC   and the RA/RP form a second primer pair via association of their
CC   complementary stem regions. The primers are selected on the basis of
CC   complementarity to the target nucleic acid sequence and amplification is
CC   via enzyme-mediated amplification. This sequence represnts an example of
CC   a forward universal primer which is complementary to the FA-FP pair
XX
SQ   Sequence 14 BP; 1 A; 6 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        267 GCCACCTGTGGTCC 280
              ||||||||||||||
```

```
Db          1 GCCACCTGTGGTCC 14


RESULT 235
ABK90359/c
ID   ABK90359 standard; DNA; 14 BP.
XX
AC   ABK90359;
XX
DT   21-OCT-2002  (first entry)
XX
DE   Bcl-2-targeting antisense oligonucleotide #28.
XX
KW   Antisense; ss; probe; Bcl-2; cell proliferative disorder; cancer; CRE;
KW   cAMP response element; bacterial infection; viral infection;
KW   inflammation; anaphylaxis; allergy; arthritis; asthma; cytostatic;
KW   autoimmune disorder; parasitic infection; virucide; hyperplasia;
KW   tumourigenesis; hepatitis B infection; human.
XX
OS   Homo sapiens.
XX
PN   WO200257480-A2.
XX
PD   25-JUL-2002.
XX
PF   22-JAN-2002; 2002WO-US001967.
XX
PR   22-JAN-2001; 2001US-0263244P.
XX
PA   (GENT-) GENTA INC.
XX
PI   Klem RE;
XX
DR   WPI; 2002-590754/63.
XX
PT   Hybrid oligomer comprises a cyclic AMP response element sequence and a
PT   sequence that hybridizes to the bcl-2 pre-mRNA or mRNA useful for
PT   preventing or treating cell-proliferative disorders e.g., cancer.
XX
PS   Disclosure; Page 12; 78pp; English.
XX
CC   The invention relates to a hybrid oligomer comprising a cyclic AMP
CC   response element (CRE) sequence and a sequence that hybridises to the bcl
CC   -2 pre-mRNA or mRNA. Also included are: (1) inhibiting the growth of
CC   cancer cells in vitro, which comprises contacting the cancer cells with a
CC   hybrid oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer;
CC   (2) treating or preventing cancer in a human, which comprises
CC   administering a hybrid oligomer or a bcl-2 antisense oligomer and a CRE
CC   decoy oligomer; and (3) a pharmaceutical composition comprising a hybrid
CC   oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer and a
CC   carrier. The pharmaceutical composition of the invention is useful for
CC   preventing or treating cell-proliferative disorders e.g., cancer,
CC   hyperplasia or tumourigenesis and also bacterial infection, viral
CC   infection, inflammation, anaphylaxis, allergy, arthritis, asthma,
CC   autoimmune disorders and parasitic infection. The CRE decoy oligomer and
CC   bcl-2 antisense oligomer are also useful for preventing or treating
CC   hepatitis B virus infection. The hybrid oligomers can also be used for
CC   screening candidate transcription factors or other molecules e.g., gene
CC   regulatory proteins or for diagnostic assays. The present sequence is a
CC   Bcl-2 antisense oligonucleotide
XX
SQ   Sequence 14 BP; 1 A; 6 C; 4 G; 3 T; 0 U; 0 Other;

  Query Match           2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          5 CGCACGCTGGGAGA 18
              ||||||||||||||
Db         14 CGCACGCTGGGAGA 1


RESULT 236
AAC65075/c
ID   AAC65075 standard; DNA; 14 BP.
XX
AC   AAC65075;
XX
DT   12-FEB-2001  (first entry)
XX
DE   Human bcl genes antisense sequence #19.
XX
KW   Antisense oligonucleotide; RNA molecule cleavage; immune activation; bcl;
KW   protein kinase C; PKC; PCR primer; ss.
XX
OS   Homo sapiens.
XX
PN   WO200061810-A1.
XX
PD   19-OCT-2000.
XX
PF   07-APR-2000; 2000WO-US009293.
XX
PR   08-APR-1999;   99US-0128377P.
XX
PA   (OASI-) OASIS BIOSCIENCES INC.
XX
PI   Brown BD,  Riley TA;
XX
DR   WPI; 2000-679502/66.
XX
PT   Antisense oligonucleotides containing degenerate and/or universal bases,
PT   and modified backbone linkages is useful to target therapeutic genes,
PT   preferably anti-apoptosis or chemoresistance genes.
XX
PS   Example 7; Fig 3; 32pp; English.
XX
CC   The present invention is concerned with antisense oligonucleotides
CC   containing a number of degenerate bases and with a modified backbone
CC   which can be used to direct cleavage of target RNA molecules. The use of
CC   degenerate bases reduces the risk of immune activation following
CC   injection into animals, which causes deleterious side effects associated
CC   with many therapeutic antisense oligonucleotides. Sequences AAC65029-
CC   C65077 are antisense oligonucleotides and PCR primers used in assays to
CC   demonstrate the effects of the sequences of the invention
XX
SQ   Sequence 14 BP; 0 A; 5 C; 7 G; 1 T; 0 U; 1 Other;

  Query Match           2.2%;  Score 13.6;  DB 1;  Length 14;
  Best Local Similarity   92.9%;  Pred. No. 1.5e+02;
  Matches   13;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        291 CCGCCAAGCCGGCG 304
              ||||||:|||||||
Db         14 CCGCCARGCCGGCG 1


RESULT 237
AAQ51961/c
ID   AAQ51961 standard; RNA; 36 BP.
XX
AC   AAQ51961;
XX
DT   25-MAR-2003  (revised)
DT   26-MAY-1994  (first entry)
XX
DE   BCL-2 mRNA ribozyme cleavable nucleotide (1997).
XX
KW   Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW   resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW   actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW   adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW   human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW   B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
KW   neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW   hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
```

```
XX
OS   Homo sapiens.
XX
PN   WO9323057-A1.
XX
PD   25-NOV-1993.
XX
PF   13-MAY-1993;   93WO-US004573.
XX
PR   14-MAY-1992;   92US-00882822.
PR   14-MAY-1992;   92US-00882885.
PR   26-AUG-1992;   92US-00936110.
PR   26-AUG-1992;   92US-00936421.
PR   26-AUG-1992;   92US-00936422.
PR   26-AUG-1992;   92US-00936531.
PR   26-AUG-1992;   92US-00936532.
PR   07-DEC-1992;   92US-00987131.
PR   19-JAN-1993;   93US-00006122.
PR   19-JAN-1993;   93US-00008910.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Draper KG;
XX
DR   WPI; 1993-386203/48.
XX
PT   New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT   with tumours or mRNA expressed from gene encoding multiple drug
PT   resistance.
XX
PS   Claim 3; Fig 6; 69pp; English.
XX
CC   The sequences given in AAQ51825-2266 represent areas of mRNAs which are
CC   associated with development or maintenance of chronic myelogenous
CC   leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC   lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC   leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC   The full length mRNAs containing these target sequences, encode aberant
CC   cellular proteins which are able to control cellular proliferation and
CC   are directly linked to a leukemic phenotype. These target sequences are
CC   identified by the ribozyme of the invention. The ribozymes is formed in a
CC   hammerhead motif, but may also be formed in the motif of a hairpin,
CC   hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC   may be used to inhibit the development or expression of a transformed
CC   phenotype in man and other animals by modulating expression of the
CC   corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC   and transformed cells elicits inhibition of the transformed state.
CC   Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC   mechanism of drug resistance used by transformed cells and thus enhances
CC   drug therapies for tumours. The ribozymes may also be used to study
CC   genetic drift and mutations within cells. (Updated on 25-MAR-2003 to
CC   correct PN field.)
XX
SQ   Sequence 36 BP; 10 A; 13 C; 8 G; 0 T; 5 U; 0 Other;

  Query Match             2.2%;  Score 13.6;  DB 1;  Length 36;
  Best Local Similarity   67.9%;  Pred. No. 2.5e+02;
  Matches   19;  Conservative    0;  Mismatches    9;  Indels    0;  Gaps    0;

Qy      560 CCTGGATCCAGGATAACGGAGGCTGGGT 587
            ||||||||||||    | |  || || |
Db       33 CCTGGATCCAGGTGTGCAGGTGCCGGTT 6


RESULT 238
AAD15638/c
ID   AAD15638 standard; DNA; 20 BP.
XX
AC   AAD15638;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #12.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 2 A; 5 C; 11 G; 2 T; 0 U; 0 Other;

  Query Match             2.1%;  Score 13.2;  DB 1;  Length 20;
  Best Local Similarity   83.3%;  Pred. No. 2.4e+02;
  Matches   15;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy      300 CGGCGACGACTTCTCCCG 317
            ||||| | || |||||||
Db       18 CGGCGCCCACATCTCCCG 1


RESULT 239
AAQ51955
ID   AAQ51955 standard; RNA; 13 BP.
XX
AC   AAQ51955;
XX
DT   25-MAR-2003  (revised)
DT   26-MAY-1994  (first entry)
XX
DE   BCL-2 mRNA ribozyme cleavable nucleotide (1683).
XX
KW   Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW   resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW   actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW   adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW   human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW   B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
KW   neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW   hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
XX
OS   Homo sapiens.
XX
PN   WO9323057-A1.
XX
PD   25-NOV-1993.
```

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XX
PF   13-MAY-1993;   93WO-US004573.
XX
PR   14-MAY-1992;   92US-00882822.
PR   14-MAY-1992;   92US-00882885.
PR   26-AUG-1992;   92US-00936110.
PR   26-AUG-1992;   92US-00936421.
PR   26-AUG-1992;   92US-00936422.
PR   26-AUG-1992;   92US-00936531.
PR   26-AUG-1992;   92US-00936532.
PR   07-DEC-1992;   92US-00987131.
PR   19-JAN-1993;   93US-00006122.
PR   19-JAN-1993;   93US-00008910.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Draper KG;
XX
DR   WPI; 1993-386203/48.
XX
PT   New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT   with tumours or mRNA expressed from gene encoding multiple drug
PT   resistance.
XX
PS   Claim 3; Fig 6; 69pp; English.
XX
CC   The sequences given in AAQ51825-2266 represent areas of mRNAs which are
CC   associated with development or maintenance of chronic myelogenous
CC   leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC   lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC   leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC   The full length mRNAs containing these target sequences, encode aberant
CC   cellular proteins which are able to control cellular proliferation and
CC   are directly linked to a leukemic phenotype. These target sequences are
CC   identified by the ribozyme of the invention. The ribozymes is formed in a
CC   hammerhead motif, but may also be formed in the motif of a hairpin,
CC   hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC   may be used to inhibit the development or expression of a transformed
CC   phenotype in man and other animals by modulating expression of the
CC   corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC   and transformed cells elicits inhibition of the transformed state.
CC   Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC   mechanism of drug resistance used by transformed cells and thus enhances
CC   drug therapies for tumours. The ribozymes may also be used to study
CC   genetic drift and mutations within cells. (Updated on 25-MAR-2003 to
CC   correct PN field.)
XX
SQ   Sequence 13 BP; 0 A; 7 C; 5 G; 0 T; 1 U; 0 Other;

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   92.3%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        225 GGCTGCCCCCGGC 237
              |||:|||||||||
Db          1 GGCUGCCCCCGGC 13


RESULT 240
ABF68058
ID   ABF68058 standard; DNA; 13 BP.
XX
AC   ABF68058;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 168055 for detecting SNP TSC0042037.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 168055; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 3 A; 0 C; 6 G; 4 T; 0 U; 0 Other;

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        469 ATGTGTGTGGAGA 481
              |||||||||||||
Db          1 ATGTGTGTGGAGA 13


RESULT 241
ABF68059/c
ID   ABF68059 standard; DNA; 13 BP.
XX
AC   ABF68059;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 168056 for detecting SNP TSC0042037.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
```

```
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 168056; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 6 C; 0 G; 3 T; 0 U; 0 Other;

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        469 ATGTGTGTGGAGA 481
              |||||||||||||
Db         13 ATGTGTGTGGAGA 1


RESULT 242
ABK90358/c
ID   ABK90358 standard; DNA; 13 BP.
XX
AC   ABK90358;
XX
DT   21-OCT-2002  (first entry)
XX
DE   Bcl-2-targeting antisense oligonucleotide #27.
XX
KW   Antisense; ss; probe; Bcl-2; cell proliferative disorder; cancer; CRE;
KW   cAMP response element; bacterial infection; viral infection;
KW   inflammation; anaphylaxis; allergy; arthritis; asthma; cytostatic;
KW   autoimmune disorder; parasitic infection; virucide; hyperplasia;
KW   tumourigenesis; hepatitis B infection; human.
XX
OS   Homo sapiens.
XX
PN   WO200257480-A2.
XX
PD   25-JUL-2002.
XX
PF   22-JAN-2002; 2002WO-US001967.
XX
PR   22-JAN-2001; 2001US-0263244P.
XX
PA   (GENT-) GENTA INC.
XX
PI   Klem RE;
XX
DR   WPI; 2002-590754/63.
XX
PT   Hybrid oligomer comprises a cyclic AMP response element sequence and a
PT   sequence that hybridizes to the bcl-2 pre-mRNA or mRNA useful for
PT   preventing or treating cell-proliferative disorders e.g., cancer.
XX
PS   Disclosure; Page 12; 78pp; English.
XX
CC   The invention relates to a hybrid oligomer comprising a cyclic AMP
CC   response element (CRE) sequence and a sequence that hybridises to the bcl
CC   -2 pre-mRNA or mRNA. Also included are: (1) inhibiting the growth of
CC   cancer cells in vitro, which comprises contacting the cancer cells with a
CC   hybrid oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer;
CC   (2) treating or preventing cancer in a human, which comprises
CC   administering a hybrid oligomer or a bcl-2 antisense oligomer and a CRE
CC   decoy oligomer; and (3) a pharmaceutical composition comprising a hybrid
CC   oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer and a
CC   carrier. The pharmaceutical composition of the invention is useful for
CC   preventing or treating cell-proliferative disorders e.g., cancer,
CC   hyperplasia or tumourigenesis and also bacterial infection, viral
CC   infection, inflammation, anaphylaxis, allergy, arthritis, asthma,
CC   autoimmune disorders and parasitic infection. The CRE decoy oligomer and
CC   bcl-2 antisense oligomer are also useful for preventing or treating
CC   hepatitis B virus infection. The hybrid oligomers can also be used for
CC   screening candidate transcription factors or other molecules e.g., gene
CC   regulatory proteins or for diagnostic assays. The present sequence is a
CC   Bcl-2 antisense oligonucleotide
XX
SQ   Sequence 13 BP; 1 A; 6 C; 3 G; 3 T; 0 U; 0 Other;

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          6 GCACGCTGGGAGA 18
              |||||||||||||
Db         13 GCACGCTGGGAGA 1


RESULT 243
AAD15628/c
ID   AAD15628 standard; DNA; 20 BP.
XX
AC   AAD15628;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #2.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
```

```
XX
SQ   Sequence 20 BP; 0 A; 9 C; 10 G; 1 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 2.6e+02;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        233 CCGGCGCCGCCGCGGGGCC 251
              | ||| |||| |||| |||
Db         19 CAGGCCCCGCGGCGGCGCC 1


RESULT 244
AAD15630/c
ID   AAD15630 standard; DNA; 20 BP.
XX
AC   AAD15630;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #4.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 0 A; 11 C; 9 G; 0 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 2.6e+02;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        235 GGCGCCGCCGCGGGGCCTG 253
              ||| |||| |||| ||| |
Db         20 GGCCCCGCGGCGGCGCCGG 2


RESULT 245
AAD15627/c
ID   AAD15627 standard; DNA; 20 BP.
XX
AC   AAD15627;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #1.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 0 A; 9 C; 10 G; 1 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 2.6e+02;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        233 CCGGCGCCGCCGCGGGGCC 251
              | ||| |||| |||| |||
Db         20 CAGGCCCCGCGGCGGCGCC 2


RESULT 246
AAD15632/c
ID   AAD15632 standard; DNA; 20 BP.
XX
AC   AAD15632;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #6.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
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```
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 0 A; 10 C; 9 G; 1 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12.6;  DB 1;  Length 20;
  Best Local Similarity   78.9%;  Pred. No. 2.6e+02;
  Matches   15;  Conservative    0;  Mismatches    4;  Indels    0;  Gaps    0;

Qy        235 GGCGCCGCCGCGGGGCCTG 253
              ||| |||| |||| ||| |
Db         19 GGCCCCGCGGCGGCGCCGG 1


RESULT 247
AAD15639/c
ID   AAD15639 standard; DNA; 20 BP.
XX
AC   AAD15639;
XX
DT   15-NOV-2001  (first entry)
XX
DE   Human Bcl-2 protein target DNA #13.
XX
KW   Human; Bcl-2 protein; genetic disease; antisense target; therapeutic; ss.
XX
OS   Homo sapiens.
XX
PN   WO200161030-A2.
XX
PD   23-AUG-2001.
XX
PF   14-FEB-2001; 2001WO-US004732.
XX
PR   14-FEB-2000; 2000US-00504653.
XX
PA   (BOLL/) BOLLON A P.
PA   (GRAY/) GRAY D M.
PA   (JUSE/) JU-SEOG L.
XX
PI   Bollon AP,  Gray DM,  Ju-Seog L;
XX
DR   WPI; 2001-529916/58.
XX
PT   Selecting optimal subsequence antisense targets for inhibition of mRNA
PT   expression of target mRNA for the therapeutic treatment of genetic
PT   disease.
XX
PS   Example 9; Page 28; 87pp; English.
XX
CC   The invention relates to a method for selecting optimal subsequence
CC   antisense targets. The method involves preparing an antisense
CC   oligonucleotide capable of inhibiting mRNA expression of target mRNA
CC   sequences, as well as antisense oligonucleotides capable of binding DNA.
CC   The antisense and antigene libraries are useful for preparing therapeutic
CC   agents for the treatment of genetic disease. The present DNA sequence is
CC   human Bcl-2 protein target DNA related to the invention. Note: The
CC   present sequence is shown as DNA in the specification; however, in vivo,
CC   this target sequence would be mRNA
XX
SQ   Sequence 20 BP; 2 A; 5 C; 11 G; 2 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12.2;  DB 1;  Length 20;
  Best Local Similarity   82.4%;  Pred. No. 2.8e+02;
  Matches   14;  Conservative    0;  Mismatches    3;  Indels    0;  Gaps    0;

Qy        300 CGGCGACGACTTCTCCC 316
              ||||| | || ||||||
Db         17 CGGCGCCCACATCTCCC 1


RESULT 248
AAQ51949
ID   AAQ51949 standard; RNA; 12 BP.
XX
AC   AAQ51949;
XX
DT   25-MAR-2003  (revised)
DT   26-MAY-1994  (first entry)
XX
DE   BCL-2 mRNA ribozyme cleavable nucleotide (1504).
XX
KW   Multiple drug resistance; mdr-1; ribozyme; membrane protein; liver;
KW   resistance; chemotherapeutic agent; colchicine; doxorubicin; colon;
KW   actinomycin D; vinblastine; small intestine; kidney; adrenal gland;
KW   adenocarcinoma; bowel; transformed phenotype; promyelocytic leukemia;
KW   human; chronic myelogenous leukemia; CML; follicular lymphoma;
KW   B-cell acute lymphocytic leukemia; breast cancer; colon carcinoma;
KW   neuroblastoma; lung cancer; genetic drift; mutation; hammerhead motif;
KW   hairpin; hepatitis delta virus; group I intron; RNaseP; ss.
XX
OS   Homo sapiens.
XX
PN   WO9323057-A1.
XX
PD   25-NOV-1993.
XX
PF   13-MAY-1993;   93WO-US004573.
XX
PR   14-MAY-1992;   92US-00882822.
PR   14-MAY-1992;   92US-00882885.
PR   26-AUG-1992;   92US-00936110.
PR   26-AUG-1992;   92US-00936421.
PR   26-AUG-1992;   92US-00936422.
PR   26-AUG-1992;   92US-00936531.
PR   26-AUG-1992;   92US-00936532.
PR   07-DEC-1992;   92US-00987131.
PR   19-JAN-1993;   93US-00006122.
PR   19-JAN-1993;   93US-00008910.
XX
PA   (RIBO-) RIBOZYME PHARM INC.
XX
PI   Thompson JD,  Draper KG;
XX
DR   WPI; 1993-386203/48.
XX
PT   New enzymatic RNA molecules (ribozymes) - which cleave mRNA associated
PT   with tumours or mRNA expressed from gene encoding multiple drug
PT   resistance.
XX
PS   Claim 3; Fig 6; 69pp; English.
XX
CC   The sequences given in AAQ51825-2266 represent areas of mRNAs which are
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CC   associated with development or maintenance of chronic myelogenous
CC   leukemia (CML), promyelocytic leukemia, Burkitt's lymphoma, or acute
CC   lymphocytic leukemia, follicular lymphoma, B-cell acute lymphocytic
CC   leukemia, breast cancer, colon carcinoma, neuroblastoma and lung cancer.
CC   The full length mRNAs containing these target sequences, encode aberant
CC   cellular proteins which are able to control cellular proliferation and
CC   are directly linked to a leukemic phenotype. These target sequences are
CC   identified by the ribozyme of the invention. The ribozymes is formed in a
CC   hammerhead motif, but may also be formed in the motif of a hairpin,
CC   hepatitis delta virus, group I intron or RNaseP-like RNA. These ribozymes
CC   may be used to inhibit the development or expression of a transformed
CC   phenotype in man and other animals by modulating expression of the
CC   corresponding gene. Cleavage of target mRNAs expressed in pre-neoplastic
CC   and transformed cells elicits inhibition of the transformed state.
CC   Multiple drug resistance (mdr-1) mRNA specific ribozymes remove the
CC   mechanism of drug resistance used by transformed cells and thus enhances
CC   drug therapies for tumours. The ribozymes may also be used to study
CC   genetic drift and mutations within cells. (Updated on 25-MAR-2003 to
CC   correct PN field.)
XX
SQ   Sequence 12 BP; 5 A; 2 C; 2 G; 0 T; 3 U; 0 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   75.0%;  Pred. No. 1.8e+02;
  Matches    9;  Conservative    3;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         46 ATGAAGTACATC 57
               |:||||:|||:|
Db          1 AUGAAGUACAUC 12


RESULT 249
AAQ94564/c
ID   AAQ94564 standard; RNA; 12 BP.
XX
AC   AAQ94564;
XX
DT   23-JAN-1996  (first entry)
XX
DE   RNA "clamp" used to block contaminants in a nucleic acid mixture.
XX
KW   Decontamination; block; probe; analysis; separation; isolation; ss.
XX
OS   Synthetic.
XX
PN   WO9514790-A1.
XX
PD   01-JUN-1995.
XX
PF   21-NOV-1994;   94WO-IB000366.
XX
PR   23-NOV-1993;   93US-00157364.
XX
PA   (CIBA ) CIBA CORNING DIAGNOSTICS CORP.
XX
PI   Ludtke DN,  Monahan JE,  Unger JT;
XX
DR   WPI; 1995-206946/27.
XX
PT   Decontamination of a mixt. of desired and contaminating nucleic acids -
PT   by blocking the activity of the contaminating nucleic acids using
PT   antisense nucleic acids.
XX
PS   Example 3; Page 35; 50pp; English.
XX
CC   AAQ94564-Q9467 are negative RNA clamps used in a new method to block the
CC   activity of contaminating nucleic acids in a nucleic acid mixture to
CC   allow the efficient amplification of a specific nucleic acid present in
CC   the mixture. The method is useful in eliminating contaminating nucleic
CC   acids from an amplification area making amplification more efficient and
CC   gene probe analysis more reproducible
XX
SQ   Sequence 12 BP; 1 A; 4 C; 3 G; 0 T; 4 U; 0 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        567 CCAGGATAACGG 578
              ||||||||||||
Db         12 CCAGGATAACGG 1


RESULT 250
AAF91774/c
ID   AAF91774 standard; DNA; 12 BP.
XX
AC   AAF91774;
XX
DT   10-MAY-2001  (first entry)
XX
DE   Breast-cancer associated protein isoform BPI-43 preferred probe #8.
XX
KW   Human; breast cancer; breast cancer associated protein isoform; BPI;
KW   breast cancer associated feature; BF; diagnosis; cytostatic; probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200113117-A2.
XX
PD   22-FEB-2001.
XX
PF   14-AUG-2000; 2000WO-GB003143.
XX
PR   13-AUG-1999;   99GB-00019258.
PR   30-MAR-2000; 2000GB-00007754.
XX
PA   (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
XX
PI   Herath HMAC;
XX
DR   WPI; 2001-211252/21.
XX
PT   Screening, diagnosis or prognosis of breast cancer, by analyzing a sample
PT   of serum or plasma by two dimensional electrophoresis to detect the
PT   presence or level of a breast cancer-associated feature.
XX
PS   Claim 185; Page 44; 146pp; English.
XX
CC   The present invention describes a method for the screening, diagnosis or
CC   prognosis of breast cancer (BC), determining the stage or severity of BC,
CC   and monitoring the effect of therapy administered to a subject having BC,
CC   comprising analysing a sample of body fluid by two dimensional
CC   electrophoresis to generate a two-dimensional array of features,
CC   comprising a chosen feature whose abundance correlates with BC or
CC   predicts the onset or course of BC. The method (I) involves: (a)
CC   analysing a sample of body fluid from the subject by two-dimensional
CC   electrophoresis to generate a two-dimensional array of features,
CC   comprising a chosen feature whose relative abundance correlates with BC
CC   or predicts the onset of BC; and (b) comparing the abundance of each
CC   chosen feature in the sample with the abundance of that chosen feature in
CC   the body fluid from one or more persons free from BC, or with a
CC   previously determined reference range for that feature in subjects free
CC   from BC, or with the abundance of an expression reference feature (ERF)
CC   in the test sample. The method is useful for screening, diagnosis or
CC   prognosis of breast cancer, determining the stage or severity of BC,
CC   monitoring the effect of therapy administered to a subject having BC, and
CC   for identifying a subject at risk of developing BC. AAB87186 to AAB87340
CC   represents breast cancer associated protein isoform (BPI) peptide
CC   sequences, and AAF91643 to AAF91848 represent BPI probes used in the
CC   exemplification of the present invention
XX
SQ   Sequence 12 BP; 2 A; 2 C; 5 G; 3 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
```

```
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        558 CACCTGGATCCA 569
              ||||||||||||
Db         12 CACCTGGATCCA 1


RESULT 251
AAF91702
ID   AAF91702 standard; DNA; 12 BP.
XX
AC   AAF91702;
XX
DT   10-MAY-2001  (first entry)
XX
DE   Breast-cancer associated protein isoform BPI-44 preferred probe #2.
XX
KW   Human; breast cancer; breast cancer associated protein isoform; BPI;
KW   breast cancer associated feature; BF; diagnosis; cytostatic; probe; ss.
XX
OS   Homo sapiens.
XX
PN   WO200113117-A2.
XX
PD   22-FEB-2001.
XX
PF   14-AUG-2000; 2000WO-GB003143.
XX
PR   13-AUG-1999;   99GB-00019258.
PR   30-MAR-2000; 2000GB-00007754.
XX
PA   (OXFO-) OXFORD GLYCOSCIENCES UK LTD.
XX
PI   Herath HMAC;
XX
DR   WPI; 2001-211252/21.
XX
PT   Screening, diagnosis or prognosis of breast cancer, by analyzing a sample
PT   of serum or plasma by two dimensional electrophoresis to detect the
PT   presence or level of a breast cancer-associated feature.
XX
PS   Claim 176; Page 42; 146pp; English.
XX
CC   The present invention describes a method for the screening, diagnosis or
CC   prognosis of breast cancer (BC), determining the stage or severity of BC,
CC   and monitoring the effect of therapy administered to a subject having BC,
CC   comprising analysing a sample of body fluid by two dimensional
CC   electrophoresis to generate a two-dimensional array of features,
CC   comprising a chosen feature whose abundance correlates with BC or
CC   predicts the onset or course of BC. The method (I) involves: (a)
CC   analysing a sample of body fluid from the subject by two-dimensional
CC   electrophoresis to generate a two-dimensional array of features,
CC   comprising a chosen feature whose relative abundance correlates with BC
CC   or predicts the onset of BC; and (b) comparing the abundance of each
CC   chosen feature in the sample with the abundance of that chosen feature in
CC   the body fluid from one or more persons free from BC, or with a
CC   previously determined reference range for that feature in subjects free
CC   from BC, or with the abundance of an expression reference feature (ERF)
CC   in the test sample. The method is useful for screening, diagnosis or
CC   prognosis of breast cancer, determining the stage or severity of BC,
CC   monitoring the effect of therapy administered to a subject having BC, and
CC   for identifying a subject at risk of developing BC. AAB87186 to AAB87340
CC   represents breast cancer associated protein isoform (BPI) peptide
CC   sequences, and AAF91643 to AAF91848 represent BPI probes used in the
CC   exemplification of the present invention
XX
SQ   Sequence 12 BP; 2 A; 0 C; 8 G; 2 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        397 GTGGTGGAGGAG 408
              ||||||||||||
Db          1 GTGGTGGAGGAG 12


RESULT 252
ABI00109/c
ID   ABI00109 standard; DNA; 12 BP.
XX
AC   ABI00109;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 300082 for detecting SNP TSC0018852.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 300082; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 12 BP; 2 A; 7 C; 1 G; 2 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         86 AGTGGGATGCGG 97
              ||||||||||||
Db         12 AGTGGGATGCGG 1


RESULT 253
ABI75178/c
ID   ABI75178 standard; DNA; 12 BP.
XX
AC   ABI75178;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide primer SEQ ID NO 375151 for detecting SNP TSC0005538.
```

XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 375151; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 12 BP; 2 A; 8 C; 0 G; 2 T; 0 U; 0 Other;

Query Match 2.0%; Score 12; DB 1; Length 12;
Best Local Similarity 100.0%; Pred. No. 1.8e+02;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 397 GTGGTGGAGGAG 408
||||||||||||
Db 12 GTGGTGGAGGAG 1

RESULT 254
ABH84990/c
ID ABH84990 standard; DNA; 12 BP.
XX
AC ABH84990;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide primer SEQ ID NO 284983 for detecting SNP TSC0012088.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 284983; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 12 BP; 4 A; 0 C; 3 G; 5 T; 0 U; 0 Other;

Query Match 2.0%; Score 12; DB 1; Length 12;
Best Local Similarity 100.0%; Pred. No. 1.8e+02;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 53 ACATCCATTATA 64
||||||||||||
Db 12 ACATCCATTATA 1

RESULT 255
ABK90357/c
ID ABK90357 standard; DNA; 12 BP.
XX
AC ABK90357;
XX
DT 21-OCT-2002 (first entry)
XX
DE Bcl-2-targeting antisense oligonucleotide #26.
XX
KW Antisense; ss; probe; Bcl-2; cell proliferative disorder; cancer; CRE;
KW cAMP response element; bacterial infection; viral infection;
KW inflammation; anaphylaxis; allergy; arthritis; asthma; cytostatic;
KW autoimmune disorder; parasitic infection; virucide; hyperplasia;
KW tumourigenesis; hepatitis B infection; human.
XX
OS Homo sapiens.
XX
PN WO200257480-A2.
XX
PD 25-JUL-2002.
XX
PF 22-JAN-2002; 2002WO-US001967.
XX
PR 22-JAN-2001; 2001US-0263244P.
XX
PA (GENT-) GENTA INC.
XX
PI Klem RE;
XX
DR WPI; 2002-590754/63.
XX
PT Hybrid oligomer comprises a cyclic AMP response element sequence and a
PT sequence that hybridizes to the bcl-2 pre-mRNA or mRNA useful for
PT preventing or treating cell-proliferative disorders e.g., cancer.

```
XX
PS   Disclosure; Page 12; 78pp; English.
XX
CC   The invention relates to a hybrid oligomer comprising a cyclic AMP
CC   response element (CRE) sequence and a sequence that hybridises to the bcl
CC   -2 pre-mRNA or mRNA. Also included are: (1) inhibiting the growth of
CC   cancer cells in vitro, which comprises contacting the cancer cells with a
CC   hybrid oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer;
CC   (2) treating or preventing cancer in a human, which comprises
CC   administering a hybrid oligomer or a bcl-2 antisense oligomer and a CRE
CC   decoy oligomer; and (3) a pharmaceutical composition comprising a hybrid
CC   oligomer or a bcl-2 antisense oligomer and a CRE decoy oligomer and a
CC   carrier. The pharmaceutical composition of the invention is useful for
CC   preventing or treating cell-proliferative disorders e.g., cancer,
CC   hyperplasia or tumourigenesis and also bacterial infection, viral
CC   infection, inflammation, anaphylaxis, allergy, arthritis, asthma,
CC   autoimmune disorders and parasitic infection. The CRE decoy oligomer and
CC   bcl-2 antisense oligomer are also useful for preventing or treating
CC   hepatitis B virus infection. The hybrid oligomers can also be used for
CC   screening candidate transcription factors or other molecules e.g., gene
CC   regulatory proteins or for diagnostic assays. The present sequence is a
CC   Bcl-2 antisense oligonucleotide
XX
SQ   Sequence 12 BP; 1 A; 5 C; 3 G; 3 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          7 CACGCTGGGAGA 18
              ||||||||||||
Db         12 CACGCTGGGAGA 1


RESULT 256
ABX79801/c
ID   ABX79801 standard; cDNA; 12 BP.
XX
AC   ABX79801;
XX
DT   17-APR-2003  (first entry)
XX
DE   EST polymorphic DNA repeat polynucleotide #126.
XX
KW   EST; expressed sequence tag; ss; polymorphic repeat; tandem repeat;
KW   polymorphic marker prediction of ubiquitous simple sequences; POMPOUS;
KW   Rep-X; human; genetic disease; drug-treatment; Machado-Joseph;
KW   Haw River syndrome; Huntington's disease; fragile-X syndrome;
KW   Fredreich's ataxis; myotonic dystrophy; hyperandrogenaemia;
KW   spinal atrophy; bulbar atrophy; spinocerebellar ataxia.
XX
OS   Homo sapiens.
XX
PN   US6472154-B1.
XX
PD   29-OCT-2002.
XX
PF   31-DEC-1999;   99US-00475947.
XX
PR   31-DEC-1999;   99US-00475947.
XX
PA   (TEXA ) UNIV TEXAS SYSTEM.
XX
PI   Garner HR,  Wren JD,  Minna JD,  Fondon JW;
XX
DR   WPI; 2003-208818/20.
XX
PT   Identifying a candidate polymorphic repeat within a coding sequence, for
PT   understanding or treating genetic disease, comprises detecting tandem
PT   repeats in a target coding sequence and scoring the repeats for
PT   polymorphic probability.
XX
PS   Example; Col 539; 588pp; English.
XX
CC   The invention discloses a method for identifying a candidate polymorphic
CC   repeat within a coding sequence (expressed sequence tag, EST), which
CC   comprises detecting tandem repeats in a target coding sequence, scoring
CC   the repeats for polymorphic probability and generating a dataset
CC   correlating the repeats with polymorphic probability to identify a
CC   candidate polymorphic repeat. The computational methods (polymorphic
CC   marker prediction of ubiquitous simple sequences, POMPOUS, and Rep-X) are
CC   useful for identifying and detecting candidate polymorphic repeats in
CC   human genes, which can be used to understand, treat or eliminate genetic
CC   diseases, predispositions or adverse drug-treatment reactions. Examples
CC   of diseases linked to nucleotide repeats are Machado-Joseph, Haw River
CC   syndrome, Huntington's disease, fragile-X syndrome, Fredreich's ataxis,
CC   myotonic dystrophy, hyperandrogenaemia, spinal and bulbar atrophy and
CC   spinocerebellar ataxia. The sequences presented in ABX79676-ABX80022 are
CC   the polymorphic repeats identified for a search of human ESTs
XX
SQ   Sequence 12 BP; 0 A; 5 C; 7 G; 0 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.8e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        115 CCCCCGGGGGCC 126
              ||||||||||||
Db         12 CCCCCGGGGGCC 1


RESULT 257
ABF38253
ID   ABF38253 standard; DNA; 13 BP.
XX
AC   ABF38253;
XX
DT   21-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 138250 for detecting SNP TSC0034601.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 138250; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
```

```
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 2 A; 9 C; 2 G; 0 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        125 CCGCCCCCGCAC 136
              ||||||||||||
Db          2 CCGCCCCCGCAC 13


RESULT 258
ABH40339
ID   ABH40339 standard; DNA; 13 BP.
XX
AC   ABH40339;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 240316 for detecting SNP TSC0058620.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 240316; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 6 A; 3 C; 0 G; 4 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         53 ACATCCATTATA 64
              ||||||||||||
Db          2 ACATCCATTATA 13


RESULT 259
ABH33977/c
ID   ABH33977 standard; DNA; 13 BP.
XX
AC   ABH33977;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 233954 for detecting SNP TSC0057094.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 233954; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 4 C; 0 G; 5 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         38 AGATAGTGATGA 49
              ||||||||||||
Db         12 AGATAGTGATGA 1


RESULT 260
ABF96336
ID   ABF96336 standard; DNA; 13 BP.
XX
AC   ABF96336;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 196333 for detecting SNP TSC0048324.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
```

KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 196333; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 2 A; 0 C; 8 G; 3 T; 0 U; 0 Other;

Query Match 2.0%; Score 12; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 396 GGTGGTGGAGGA 407
||||||||||||
Db 2 GGTGGTGGAGGA 13

RESULT 261
ABF38252/c
ID ABF38252 standard; DNA; 13 BP.
XX
AC ABF38252;
XX
DT 21-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 138249 for detecting SNP TSC0034601.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 138249; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 0 A; 2 C; 9 G; 2 T; 0 U; 0 Other;

Query Match 2.0%; Score 12; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 125 CCGCCCCCGCAC 136
||||||||||||
Db 12 CCGCCCCCGCAC 1

RESULT 262
ABH40338/c
ID ABH40338 standard; DNA; 13 BP.
XX
AC ABH40338;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 240315 for detecting SNP TSC0058620.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 240315; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic

```
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 4 A; 0 C; 3 G; 6 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         53 ACATCCATTATA 64
              ||||||||||||
Db         12 ACATCCATTATA 1


RESULT 263
ABH11327
ID   ABH11327 standard; DNA; 13 BP.
XX
AC   ABH11327;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 211304 for detecting SNP TSC0051543.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 211304; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 1 A; 7 C; 0 G; 4 T; 0 U; 1 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        144 CTTCTCCTCCCA 155
              ||||||||||||
Db          2 CTTCTCCTCCCA 13


RESULT 264
ABH33976
ID   ABH33976 standard; DNA; 13 BP.
XX
AC   ABH33976;
XX
DT   22-FEB-2002  (first entry)
XX
DE   Oligonucleotide SEQ ID NO 233953 for detecting SNP TSC0057094.
XX
KW   SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW   peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW   central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS   Homo sapiens.
XX
PN   WO200177384-A2.
XX
PD   18-OCT-2001.
XX
PF   06-APR-2001; 2001WO-IB000713.
XX
PR   07-APR-2000; 2000DE-01019173.
XX
PA   (EPIG-) EPIGENOMICS AG.
XX
PI   Olek A,  Piepenbrock C,  Berlin K;
XX
DR   WPI; 2001-657177/75.
XX
PT   Set of oligonucleotides, useful for diagnosis and cell typing, is
PT   designed to detect single-nucleotide polymorphisms and cytosine
PT   methylation status.
XX
PS   Claim 1; SEQ ID NO 233953; 29pp + Sequence Listing; German.
XX
CC   This invention describes novel oligonucleotide primers or peptide nucleic
CC   acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC   and cytosine methylation status in chemically pretreated genomic DNA. The
CC   oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC   range of diseases including immune system, gastrointestinal, respiratory,
CC   central nervous system, cardiovascular and metabolic disorders. The
CC   oligomers are also used for detecting cell type differentiation. ABC00010
CC   -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC   represent the oligomers described in the invention. NOTE: The sequence
CC   data for this patent did not form part of the printed specification, but
CC   was obtained in electronic format from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 13 BP; 5 A; 0 C; 4 G; 4 T; 0 U; 0 Other;

  Query Match             2.0%;  Score 12;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.9e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy         38 AGATAGTGATGA 49
              ||||||||||||
Db          2 AGATAGTGATGA 13


RESULT 265
ABF96337/c
ID   ABF96337 standard; DNA; 13 BP.
```

XX
AC ABF96337;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 196334 for detecting SNP TSC0048324.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 196334; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 3 A; 8 C; 0 G; 2 T; 0 U; 0 Other;

Query Match 2.0%; Score 12; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 396 GGTGGTGGAGGA 407
||||||||||||
Db 12 GGTGGTGGAGGA 1

RESULT 266
ABH11326/c
ID ABH11326 standard; DNA; 13 BP.
XX
AC ABH11326;
XX
DT 22-FEB-2002 (first entry)
XX
DE Oligonucleotide SEQ ID NO 211303 for detecting SNP TSC0051543.
XX
KW SNP; single nucleotide polymorphism; human; diagnosis; PNA; cancer; CNS;
KW peptide nucleic acid; cytosine methylation; cardiovascular; primer; ss;
KW central nervous system; gastrointestinal; respiratory; immune; metabolic.
XX
OS Homo sapiens.
XX
PN WO200177384-A2.
XX
PD 18-OCT-2001.
XX
PF 06-APR-2001; 2001WO-IB000713.
XX
PR 07-APR-2000; 2000DE-01019173.
XX
PA (EPIG-) EPIGENOMICS AG.
XX
PI Olek A, Piepenbrock C, Berlin K;
XX
DR WPI; 2001-657177/75.
XX
PT Set of oligonucleotides, useful for diagnosis and cell typing, is
PT designed to detect single-nucleotide polymorphisms and cytosine
PT methylation status.
XX
PS Claim 1; SEQ ID NO 211303; 29pp + Sequence Listing; German.
XX
CC This invention describes novel oligonucleotide primers or peptide nucleic
CC acid (PNA) oligomers for detecting single nucleotide polymorphisms (SNP)
CC and cytosine methylation status in chemically pretreated genomic DNA. The
CC oligonucleotides are used for diagnosis and/or prognosis of cancer and a
CC range of diseases including immune system, gastrointestinal, respiratory,
CC central nervous system, cardiovascular and metabolic disorders. The
CC oligomers are also used for detecting cell type differentiation. ABC00010
CC -ABC99989, ABF00010-ABF99989, ABH00010-ABH99989 and ABI00010-ABI82073
CC represent the oligomers described in the invention. NOTE: The sequence
CC data for this patent did not form part of the printed specification, but
CC was obtained in electronic format from WIPO at
CC ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 13 BP; 4 A; 0 C; 7 G; 1 T; 0 U; 1 Other;

Query Match 2.0%; Score 12; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 144 CTTCTCCTCCCA 155
||||||||||||
Db 12 CTTCTCCTCCCA 1

RESULT 267
ADB98866/c
ID ADB98866 standard; DNA; 13 BP.
XX
AC ADB98866;
XX
DT 04-DEC-2003 (first entry)
XX
DE Mutated LRP5 exon fragment #28.
XX
KW Osteopathic; Gene therapy; High Bone Mass; HBM; LRP5; Zmax1; LRP6;
KW bone mass modulation; osteoporosis; ds.
XX
OS Synthetic.
XX
PN WO200292000-A2.
XX
PD 21-NOV-2002.
XX
PF 13-MAY-2002; 2002WO-US014877.
XX
PR 11-MAY-2001; 2001US-0290071P.
PR 17-MAY-2001; 2001US-0291311P.
PR 01-FEB-2002; 2002US-0353058P.
PR 04-MAR-2002; 2002US-0361293P.
XX
PA (GENO-) GENOME THERAPEUTICS CORP.
PA (AMHP) WYETH.
XX

PI Allen K, Anisowicz A, Graham JR, Morales A, Yaworsky PJ, Liu W;
XX
DR WPI; 2003-129214/12.
XX
PT New nucleic acid comprising a mutation in LRP5 or LRP6, useful for
PT diagnosing a HBM-like phenotype in a subject and for preparing a
PT composition for modulating bone mass and/or lipid levels in a subject
PT suffering from e.g. osteoporosis.
XX
PS Disclosure; Page 51; 629pp; English.
XX
CC The present invention relates to High Bone Mass (HBM), LRP5 (Zmax1) and
CC LRP6 mutants, which results in a HBM-like phenotype when expressed in a
CC cell. The HBM-like phenotype results in bone mass modulation and/or lipid
CC level modulation. The invention is useful for diagnosing a HBM-like
CC phenotype in a subject and for preparing a composition for modulating
CC bone mass and/or lipid levels in a subject suffering from e.g.
CC osteoporosis. The present sequence was used to illustrate the invention.
XX
SQ Sequence 13 BP; 1 A; 4 C; 8 G; 0 T; 0 U; 0 Other;

Query Match 2.0%; Score 12; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.9e+02;
Matches 12; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 222 CCCGGCTGCCCC 233
||||||||||||
Db 13 CCCGGCTGCCCC 2

Search completed: September 22, 2004, 08:55:20
Job time : 3 secs

Blank sheet

GenCore version 5.1.6

OM nucleic - nucleic search, using sw model

Run on: September 22, 2004, 08:58:46 ; Search time 1 Seconds
(without alignments)
4.533 Million cell updates/sec

Title: US-09-375-514B-22
Perfect score: 615
Sequence: 1 atggcgcacgctgggagaac.....ctggtgatgtgagtctgggc 615

Scoring table: IDENTITY_NUC
Gapop 10.0 , Gapext 0.5

Searched: 199 seqs, 3685 residues

Total number of hits satisfying chosen parameters: 398

Minimum DB seq length: 10
Maximum DB seq length: 40

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 200 summaries

Database : rnpb22.seq:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Result No.	Score	% Query Match	Length	DB	ID	Description
	1	39	6.3	39	1	US-10-343-859-28	Sequence 28, Appl
	2	37.4	6.1	39	1	US-10-343-859-29	Sequence 29, Appl
c	3	37	6.0	39	1	US-10-343-859-27	Sequence 27, Appl
	4	27	4.4	27	1	US-10-087-229-3	Sequence 3, Appli
	5	27	4.4	27	1	US-10-087-229-4	Sequence 4, Appli
	6	27	4.4	27	1	US-10-087-229-5	Sequence 5, Appli
	7	27	4.4	27	1	US-10-087-229-6	Sequence 6, Appli
	8	27	4.4	27	1	US-10-087-229-7	Sequence 7, Appli
	9	27	4.4	27	1	US-10-222-943A-3	Sequence 3, Appli
	10	27	4.4	27	1	US-10-222-943A-4	Sequence 4, Appli
	11	27	4.4	27	1	US-10-222-943A-5	Sequence 5, Appli
	12	27	4.4	27	1	US-10-222-943A-6	Sequence 6, Appli
	13	27	4.4	27	1	US-10-222-943A-7	Sequence 7, Appli
c	14	25.4	4.1	27	1	US-10-148-953A-15	Sequence 15, Appl
	15	24	3.9	24	1	US-09-920-342-11	Sequence 11, Appl
c	16	24	3.9	24	1	US-10-384-260-2	Sequence 2, Appli
	17	23	3.7	23	1	US-10-714-310-21	Sequence 21, Appl
c	18	22.4	3.6	24	1	US-09-371-900-11	Sequence 11, Appl
c	19	22.4	3.6	24	1	US-09-970-820-11	Sequence 11, Appl
c	20	22.4	3.6	24	1	US-09-986-718-11	Sequence 11, Appl
c	21	22.4	3.6	24	1	US-10-186-950-11	Sequence 11, Appl
	22	22	3.6	22	1	US-09-931-732-21	Sequence 21, Appl
	23	22	3.6	22	1	US-10-142-566-51	Sequence 51, Appl
	24	22	3.6	22	1	US-10-142-666-87	Sequence 87, Appl
	25	22	3.6	22	1	US-10-313-669-228	Sequence 228, App
	26	22	3.6	22	1	US-10-384-260-1	Sequence 1, Appli
	27	21	3.4	21	1	US-10-087-229-1	Sequence 1, Appli
	28	21	3.4	21	1	US-10-222-943A-1	Sequence 1, Appli
c	29	20	3.3	20	1	US-10-087-229-2	Sequence 2, Appli
c	30	20	3.3	20	1	US-10-222-943A-2	Sequence 2, Appli
c	31	20	3.3	20	1	US-10-053-645A-3	Sequence 3, Appli
c	32	20	3.3	20	1	US-10-714-310-29	Sequence 29, Appl
c	33	20	3.3	20	1	US-10-714-310-30	Sequence 30, Appl
c	34	20	3.3	20	1	US-10-714-310-31	Sequence 31, Appl
	35	19	3.1	19	1	US-09-932-129-1	Sequence 1, Appli
	36	19	3.1	19	1	US-10-409-107A-31	Sequence 31, Appl
	37	19	3.1	19	1	US-10-033-024A-23	Sequence 23, Appl
	38	19	3.1	19	1	US-10-621-009-1	Sequence 1, Appli
c	39	18.4	3.0	20	1	US-09-932-300-72	Sequence 72, Appl
c	40	18.4	3.0	20	1	US-09-781-980-1	Sequence 1, Appli
	41	18.4	3.0	20	1	US-09-781-980-3	Sequence 3, Appli
c	42	18	2.9	18	1	US-09-824-468-59	Sequence 59, Appl
c	43	18	2.9	18	1	US-09-824-468-104	Sequence 104, App
	44	18	2.9	18	1	US-09-965-116A-7	Sequence 7, Appli
c	45	18	2.9	18	1	US-09-965-116A-77	Sequence 77, Appl
c	46	18	2.9	18	1	US-09-965-116A-98	Sequence 98, Appl
c	47	18	2.9	18	1	US-09-965-116A-99	Sequence 99, Appl
c	48	18	2.9	18	1	US-09-800-266A-51	Sequence 51, Appl
c	49	18	2.9	18	1	US-09-895-007A-51	Sequence 51, Appl
c	50	18	2.9	18	1	US-09-835-371-21	Sequence 21, Appl
c	51	18	2.9	18	1	US-09-920-313-51	Sequence 51, Appl
c	52	18	2.9	18	1	US-09-835-370-21	Sequence 21, Appl
c	53	18	2.9	18	1	US-09-888-326-755	Sequence 755, App
c	54	18	2.9	18	1	US-09-888-326-756	Sequence 756, App
c	55	18	2.9	18	1	US-09-931-732-20	Sequence 20, Appl
c	56	18	2.9	18	1	US-09-818-918-55	Sequence 55, Appl
c	57	18	2.9	18	1	US-09-776-479-1	Sequence 1, Appli
c	58	18	2.9	18	1	US-09-776-479-1	Sequence 1, Appli
c	59	18	2.9	18	1	US-09-776-479-54	Sequence 54, Appl
c	60	18	2.9	18	1	US-09-776-479-54	Sequence 54, Appl
c	61	18	2.9	18	1	US-09-776-479-55	Sequence 55, Appl
c	62	18	2.9	18	1	US-09-776-479-55	Sequence 55, Appl
c	63	18	2.9	18	1	US-09-776-479-91	Sequence 91, Appl
c	64	18	2.9	18	1	US-09-776-479-91	Sequence 91, Appl
c	65	18	2.9	18	1	US-09-954-987B-115	Sequence 115, App
c	66	18	2.9	18	1	US-09-895-480A-14	Sequence 14, Appl
c	67	18	2.9	18	1	US-09-967-464-4	Sequence 4, Appli
c	68	18	2.9	18	1	US-10-373-381-46	Sequence 46, Appl
c	69	18	2.9	18	1	US-10-333-448-2	Sequence 2, Appli
c	70	18	2.9	18	1	US-09-760-506-2	Sequence 2, Appli
c	71	18	2.9	18	1	US-10-314-578-1	Sequence 1, Appli
c	72	18	2.9	18	1	US-10-314-578-54	Sequence 54, Appl
c	73	18	2.9	18	1	US-10-314-578-55	Sequence 55, Appl
c	74	18	2.9	18	1	US-10-314-578-91	Sequence 91, Appl
c	75	18	2.9	18	1	US-10-434-696-51	Sequence 51, Appl
c	76	18	2.9	18	1	US-10-023-909A-51	Sequence 51, Appl
c	77	18	2.9	18	1	US-10-112-653-1	Sequence 1, Appli
c	78	18	2.9	18	1	US-10-112-653-85	Sequence 85, Appl
c	79	18	2.9	18	1	US-10-017-995-1	Sequence 1, Appli
c	80	18	2.9	18	1	US-10-017-995-54	Sequence 54, Appl
c	81	18	2.9	18	1	US-10-017-995-55	Sequence 55, Appl
c	82	18	2.9	18	1	US-10-017-995-91	Sequence 91, Appl
c	83	18	2.9	18	1	US-10-002-884A-6	Sequence 6, Appli
c	84	18	2.9	18	1	US-10-300-247-51	Sequence 51, Appl
c	85	18	2.9	18	1	US-10-161-229-53	Sequence 53, Appl
c	86	18	2.9	18	1	US-10-142-566-45	Sequence 45, Appl
c	87	18	2.9	18	1	US-10-290-545-9	Sequence 9, Appli
c	88	18	2.9	18	1	US-10-290-545-24	Sequence 24, Appl
c	89	18	2.9	18	1	US-10-262-318-6	Sequence 6, Appli
c	90	18	2.9	18	1	US-10-224-523-40	Sequence 40, Appl
c	91	18	2.9	18	1	US-10-379-164-2	Sequence 2, Appli
c	92	18	2.9	18	1	US-10-187-264A-45	Sequence 45, Appl
c	93	18	2.9	18	1	US-10-265-072-112	Sequence 112, App
c	94	18	2.9	18	1	US-10-365-623-15	Sequence 15, Appl
c	95	18	2.9	18	1	US-10-142-666-9	Sequence 9, Appli
c	96	18	2.9	18	1	US-10-053-645A-17	Sequence 17, Appl
c	97	18	2.9	18	1	US-10-053-645A-24	Sequence 24, Appl
c	98	18	2.9	18	1	US-10-140-013-1	Sequence 1, Appli
c	99	18	2.9	18	1	US-10-140-013-2	Sequence 2, Appli
c	100	18	2.9	18	1	US-10-306-522-45	Sequence 45, Appl
c	101	18	2.9	18	1	US-10-233-902-6	Sequence 6, Appli
c	102	18	2.9	18	1	US-10-437-263-9	Sequence 9, Appli
c	103	18	2.9	18	1	US-10-437-263-24	Sequence 24, Appl
c	104	18	2.9	18	1	US-10-437-275-9	Sequence 9, Appli
c	105	18	2.9	18	1	US-10-437-275-24	Sequence 24, Appl
c	106	18	2.9	18	1	US-10-447-136-218	Sequence 218, App

c 107	18	2.9	18	1	US-10-437-258-9	Sequence 9, Appli
c 108	18	2.9	18	1	US-10-437-258-24	Sequence 24, Appl
c 109	18	2.9	18	1	US-10-719-493-45	Sequence 45, Appl
c 110	18	2.9	18	1	US-10-627-331-45	Sequence 45, Appl
c 111	18	2.9	18	1	US-10-666-733-51	Sequence 51, Appl
c 112	18	2.9	18	1	US-10-743-625-55	Sequence 55, Appl
c 113	18	2.9	18	1	US-10-714-310-32	Sequence 32, Appl
c 114	18	2.9	18	1	US-10-769-282-55	Sequence 55, Appl
c 115	18	2.9	18	1	US-10-735-592-60	Sequence 60, Appl
116	18	2.9	19	1	US-09-974-974-13	Sequence 13, Appl
c 117	18	2.9	20	1	US-09-888-326-757	Sequence 757, App
c 118	18	2.9	20	1	US-09-776-479-87	Sequence 87, Appl
c 119	18	2.9	20	1	US-09-776-479-87	Sequence 87, Appl
c 120	18	2.9	20	1	US-10-314-578-87	Sequence 87, Appl
c 121	18	2.9	20	1	US-10-112-653-81	Sequence 81, Appl
c 122	18	2.9	20	1	US-10-017-995-87	Sequence 87, Appl
123	17.4	2.8	19	1	US-10-016-490C-3	Sequence 3, Appli
c 124	17.4	2.8	19	1	US-10-251-117-194	Sequence 194, App
125	17.4	2.8	19	1	US-10-251-117-443	Sequence 443, App
126	17	2.8	17	1	US-10-714-310-17	Sequence 17, Appl
c 127	16.4	2.7	18	1	US-09-824-468-72	Sequence 72, Appl
c 128	16.4	2.7	18	1	US-09-888-326-750	Sequence 750, App
c 129	16.4	2.7	18	1	US-09-888-326-751	Sequence 751, App
c 130	16.4	2.7	18	1	US-09-888-326-753	Sequence 753, App
c 131	16.4	2.7	18	1	US-09-931-583-69	Sequence 69, Appl
c 132	16.4	2.7	18	1	US-09-776-479-78	Sequence 78, Appl
c 133	16.4	2.7	18	1	US-09-776-479-78	Sequence 78, Appl
c 134	16.4	2.7	18	1	US-09-776-479-79	Sequence 79, Appl
c 135	16.4	2.7	18	1	US-09-776-479-79	Sequence 79, Appl
c 136	16.4	2.7	18	1	US-09-776-479-406	Sequence 406, App
c 137	16.4	2.7	18	1	US-09-776-479-406	Sequence 406, App
c 138	16.4	2.7	18	1	US-09-954-987B-113	Sequence 113, App
c 139	16.4	2.7	18	1	US-10-373-381-60	Sequence 60, Appl
c 140	16.4	2.7	18	1	US-10-399-356-2	Sequence 2, Appli
c 141	16.4	2.7	18	1	US-10-314-578-78	Sequence 78, Appl
c 142	16.4	2.7	18	1	US-10-314-578-79	Sequence 79, Appl
c 143	16.4	2.7	18	1	US-10-314-578-406	Sequence 406, App
c 144	16.4	2.7	18	1	US-10-112-653-72	Sequence 72, Appl
c 145	16.4	2.7	18	1	US-10-112-653-73	Sequence 73, Appl
c 146	16.4	2.7	18	1	US-10-112-653-393	Sequence 393, App
c 147	16.4	2.7	18	1	US-10-017-995-78	Sequence 78, Appl
c 148	16.4	2.7	18	1	US-10-017-995-79	Sequence 79, Appl
c 149	16.4	2.7	18	1	US-10-017-995-406	Sequence 406, App
c 150	16.4	2.7	18	1	US-10-161-229-66	Sequence 66, Appl
c 151	16.4	2.7	18	1	US-10-187-264A-72	Sequence 72, Appl
c 152	16.4	2.7	18	1	US-10-265-072-110	Sequence 110, App
c 153	16.4	2.7	18	1	US-10-306-522-72	Sequence 72, Appl
c 154	16.4	2.7	18	1	US-10-719-493-72	Sequence 72, Appl
c 155	16.4	2.7	18	1	US-10-627-331-72	Sequence 72, Appl
c 156	16.4	2.7	18	1	US-10-735-592-53	Sequence 53, Appl
157	15.4	2.5	17	1	US-09-740-332-129	Sequence 129, App
c 158	15.4	2.5	17	1	US-09-740-332-4426	Sequence 4426, Ap
159	15.4	2.5	17	1	US-09-817-879-129	Sequence 129, App
c 160	15.4	2.5	17	1	US-09-817-879-4426	Sequence 4426, Ap
c 161	15.4	2.5	17	1	US-10-163-552-807	Sequence 807, App
c 162	15.4	2.5	17	1	US-10-163-552-808	Sequence 808, App
c 163	15.4	2.5	17	1	US-10-138-674-3243	Sequence 3243, Ap
c 164	15.4	2.5	17	1	US-10-287-949A-3243	Sequence 3243, Ap
165	15.4	2.5	17	1	US-10-669-841-2722	Sequence 2722, Ap
c 166	15.4	2.5	17	1	US-10-669-841-7019	Sequence 7019, Ap
167	14	2.3	14	1	US-09-932-129-2	Sequence 2, Appli
168	14	2.3	14	1	US-10-621-009-2	Sequence 2, Appli
c 169	14	2.3	14	1	US-10-714-310-8	Sequence 8, Appli
c 170	14	2.3	14	1	US-10-714-310-9	Sequence 9, Appli
c 171	14	2.3	14	1	US-10-714-310-10	Sequence 10, Appl
c 172	14	2.3	14	1	US-10-714-310-11	Sequence 11, Appl
c 173	14	2.3	14	1	US-10-714-310-12	Sequence 12, Appl
174	14	2.3	14	1	US-10-714-310-16	Sequence 16, Appl
c 175	14	2.3	14	1	US-10-714-310-25	Sequence 25, Appl
c 176	14	2.3	14	1	US-10-714-310-26	Sequence 26, Appl
c 177	14	2.3	14	1	US-10-714-310-27	Sequence 27, Appl
c 178	14	2.3	14	1	US-10-714-310-28	Sequence 28, Appl
c 179	14	2.3	14	1	US-10-714-310-33	Sequence 33, Appl
c 180	14	2.3	14	1	US-10-714-310-34	Sequence 34, Appl
c 181	13.4	2.2	39	1	US-10-343-859-29	Sequence 29, Appl
182	13	2.1	13	1	US-10-156-433-5	Sequence 5, Appli
183	13	2.1	13	1	US-10-156-433-6	Sequence 6, Appli
184	13	2.1	13	1	US-10-156-433-8	Sequence 8, Appli
185	13	2.1	13	1	US-10-156-433-9	Sequence 9, Appli
186	13	2.1	13	1	US-10-156-433-10	Sequence 10, Appl
187	13	2.1	13	1	US-10-156-433-11	Sequence 11, Appl
188	13	2.1	13	1	US-10-156-433-12	Sequence 12, Appl
189	13	2.1	13	1	US-10-156-433-13	Sequence 13, Appl
190	13	2.1	13	1	US-10-112-814-5	Sequence 5, Appli
191	13	2.1	13	1	US-10-112-814-6	Sequence 6, Appli
192	13	2.1	13	1	US-10-112-814-8	Sequence 8, Appli
193	13	2.1	13	1	US-10-112-814-9	Sequence 9, Appli
194	13	2.1	13	1	US-10-112-814-10	Sequence 10, Appl
195	13	2.1	13	1	US-10-112-814-11	Sequence 11, Appl
196	13	2.1	13	1	US-10-112-814-12	Sequence 12, Appl
197	13	2.1	13	1	US-10-112-814-13	Sequence 13, Appl
c 198	13	2.1	13	1	US-10-714-310-13	Sequence 13, Appl
199	12	2.0	12	1	US-10-076-047A-177	Sequence 177, App
c 200	12	2.0	12	1	US-10-076-047A-255	Sequence 255, App

ALIGNMENTS

RESULT 1
US-10-343-859-28
; Sequence 28, Application US/10343859
; Publication No. US20040110161A1
; GENERAL INFORMATION:
; APPLICANT: Nanogen Recognomics GMBH
; TITLE OF INVENTION: Method for detecting mutations in
; TITLE OF INVENTION: nucleotide sequences
; FILE REFERENCE: 612,406-033
; CURRENT APPLICATION NUMBER: US/10/343,859
; CURRENT FILING DATE: 2003-11-24
; PRIOR APPLICATION NUMBER: PCT/EP01/08127
; PRIOR FILING DATE: 2001-07-13
; PRIOR APPLICATION NUMBER: 10038237.1
; PRIOR FILING DATE: 2000-08-04
; NUMBER OF SEQ ID NOS: 52
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 28
; LENGTH: 39
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-343-859-28

Query Match 6.3%; Score 39; DB 1; Length 39;
Best Local Similarity 100.0%; Pred. No. 1.4;
Matches 39; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        155 AGCCCGGGCACACGCCCCATCCAGCCGCATCCCGCGACC 193
              |||||||||||||||||||||||||||||||||||||||
Db          1 AGCCCGGGCACACGCCCCATCCAGCCGCATCCCGCGACC 39
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RESULT 2
US-10-343-859-29
; Sequence 29, Application US/10343859
; Publication No. US20040110161A1
; GENERAL INFORMATION:
; APPLICANT: Nanogen Recognomics GMBH
; TITLE OF INVENTION: Method for detecting mutations in
; TITLE OF INVENTION: nucleotide sequences
; FILE REFERENCE: 612,406-033
; CURRENT APPLICATION NUMBER: US/10/343,859
; CURRENT FILING DATE: 2003-11-24
; PRIOR APPLICATION NUMBER: PCT/EP01/08127
; PRIOR FILING DATE: 2001-07-13
; PRIOR APPLICATION NUMBER: 10038237.1
; PRIOR FILING DATE: 2000-08-04

; NUMBER OF SEQ ID NOS: 52
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 29
; LENGTH: 39
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-343-859-29

Query Match 6.1%; Score 37.4; DB 1; Length 39;
Best Local Similarity 97.4%; Pred. No. 2;
Matches 38; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 155 AGCCCGGGCACACGCCCCATCCAGCCGCATCCCGCGACC 193
||||||||||||||||||||| ||||||||||||||||||||
Db 1 AGCCCGGGCACACGCCCCATTCAGCCGCATCCCGCGACC 39

RESULT 3
US-10-343-859-27/c
; Sequence 27, Application US/10343859
; Publication No. US20040110161A1
; GENERAL INFORMATION:
; APPLICANT: Nanogen Recognomics GMBH
; TITLE OF INVENTION: Method for detecting mutations in
; TITLE OF INVENTION: nucleotide sequences
; FILE REFERENCE: 612,406-033
; CURRENT APPLICATION NUMBER: US/10/343,859
; CURRENT FILING DATE: 2003-11-24
; PRIOR APPLICATION NUMBER: PCT/EP01/08127
; PRIOR FILING DATE: 2001-07-13
; PRIOR APPLICATION NUMBER: 10038237.1
; PRIOR FILING DATE: 2000-08-04
; NUMBER OF SEQ ID NOS: 52
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 27
; LENGTH: 39
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-343-859-27

Query Match 6.0%; Score 37; DB 1; Length 39;
Best Local Similarity 100.0%; Pred. No. 2.2;
Matches 37; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 157 CCCGGGCACACGCCCCATCCAGCCGCATCCCGCGACC 193
|||||||||||||||||||||||||||||||||||||
Db 39 CCCGGGCACACGCCCCATCCAGCCGCATCCCGCGACC 3

RESULT 4
US-10-087-229-3
; Sequence 3, Application US/10087229
; Publication No. US20030162184A1
; GENERAL INFORMATION:
; APPLICANT: Chou, Quin
; APPLICANT: Cabradilla, Cirilo D.
; TITLE OF INVENTION: Methods of Using FET Labeled
; TITLE OF INVENTION: Oligonucleotides That Include a 3'-5' Exonuclease Resistant
; TITLE OF INVENTION: Quencher Domain and Compositions for Practicing the Same
; FILE REFERENCE: BIOS-001
; CURRENT APPLICATION NUMBER: US/10/087,229
; CURRENT FILING DATE: 2002-02-27
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 27
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic oligonucleotide
US-10-087-229-3

Query Match 4.4%; Score 27; DB 1; Length 27;
Best Local Similarity 100.0%; Pred. No. 14;
Matches 27; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 522 CCTGTGGATGACTGAGTACCTGAACCG 548
|||||||||||||||||||||||||||
Db 1 CCTGTGGATGACTGAGTACCTGAACCG 27

RESULT 5
US-10-087-229-4
; Sequence 4, Application US/10087229
; Publication No. US20030162184A1
; GENERAL INFORMATION:
; APPLICANT: Chou, Quin
; APPLICANT: Cabradilla, Cirilo D.
; TITLE OF INVENTION: Methods of Using FET Labeled
; TITLE OF INVENTION: Oligonucleotides That Include a 3'-5' Exonuclease Resistant
; TITLE OF INVENTION: Quencher Domain and Compositions for Practicing the Same
; FILE REFERENCE: BIOS-001
; CURRENT APPLICATION NUMBER: US/10/087,229
; CURRENT FILING DATE: 2002-02-27
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
; LENGTH: 27
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic oligonucleotide
US-10-087-229-4

Query Match 4.4%; Score 27; DB 1; Length 27;
Best Local Similarity 100.0%; Pred. No. 14;
Matches 27; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 522 CCTGTGGATGACTGAGTACCTGAACCG 548
|||||||||||||||||||||||||||
Db 1 CCTGTGGATGACTGAGTACCTGAACCG 27

RESULT 6
US-10-087-229-5
; Sequence 5, Application US/10087229
; Publication No. US20030162184A1
; GENERAL INFORMATION:
; APPLICANT: Chou, Quin
; APPLICANT: Cabradilla, Cirilo D.
; TITLE OF INVENTION: Methods of Using FET Labeled
; TITLE OF INVENTION: Oligonucleotides That Include a 3'-5' Exonuclease Resistant
; TITLE OF INVENTION: Quencher Domain and Compositions for Practicing the Same
; FILE REFERENCE: BIOS-001
; CURRENT APPLICATION NUMBER: US/10/087,229
; CURRENT FILING DATE: 2002-02-27
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 5
; LENGTH: 27
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic oligonucleotide
US-10-087-229-5

Query Match 4.4%; Score 27; DB 1; Length 27;
Best Local Similarity 100.0%; Pred. No. 14;
Matches 27; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 522 CCTGTGGATGACTGAGTACCTGAACCG 548
|||||||||||||||||||||||||||
Db 1 CCTGTGGATGACTGAGTACCTGAACCG 27

RESULT 7

```
US-10-087-229-6
; Sequence 6, Application US/10087229
; Publication No. US20030162184A1
; GENERAL INFORMATION:
;  APPLICANT: Chou, Quin
;  APPLICANT:  Cabradilla, Cirilo D.
;  TITLE OF INVENTION: Methods of Using FET Labeled
;  TITLE OF INVENTION:  Oligonucleotides That Include a 3'-5' Exonuclease Resistant
;  TITLE OF INVENTION:  Quencher Domain and Compositions for Practicing the Same
;  FILE REFERENCE: BIOS-001
;  CURRENT APPLICATION NUMBER: US/10/087,229
;  CURRENT FILING DATE:  2002-02-27
;  NUMBER OF SEQ ID NOS: 22
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 6
;   LENGTH: 27
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligonucleotide
US-10-087-229-6

  Query Match             4.4%;  Score 27;  DB 1;  Length 27;
  Best Local Similarity   100.0%;  Pred. No. 14;
  Matches   27;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        522 CCTGTGGATGACTGAGTACCTGAACCG 548
              |||||||||||||||||||||||||||
Db          1 CCTGTGGATGACTGAGTACCTGAACCG 27


RESULT 8
US-10-087-229-7
; Sequence 7, Application US/10087229
; Publication No. US20030162184A1
; GENERAL INFORMATION:
;  APPLICANT: Chou, Quin
;  APPLICANT:  Cabradilla, Cirilo D.
;  TITLE OF INVENTION: Methods of Using FET Labeled
;  TITLE OF INVENTION:  Oligonucleotides That Include a 3'-5' Exonuclease Resistant
;  TITLE OF INVENTION:  Quencher Domain and Compositions for Practicing the Same
;  FILE REFERENCE: BIOS-001
;  CURRENT APPLICATION NUMBER: US/10/087,229
;  CURRENT FILING DATE:  2002-02-27
;  NUMBER OF SEQ ID NOS: 22
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 7
;   LENGTH: 27
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligonucleotide
US-10-087-229-7

  Query Match             4.4%;  Score 27;  DB 1;  Length 27;
  Best Local Similarity   100.0%;  Pred. No. 14;
  Matches   27;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        522 CCTGTGGATGACTGAGTACCTGAACCG 548
              |||||||||||||||||||||||||||
Db          1 CCTGTGGATGACTGAGTACCTGAACCG 27


RESULT 9
US-10-222-943A-3
; Sequence 3, Application US/10222943A
; Publication No. US20030165920A1
; GENERAL INFORMATION:
;  APPLICANT: Chou, Quin
;  APPLICANT:  Cabradilla JR, Cirilo D.
;  TITLE OF INVENTION: Methods of Using FET Labeled
;  TITLE OF INVENTION:  Oligonucleotides That Include a 3'-5' Exonuclease Resistant
;  TITLE OF INVENTION:  Quencher Domain and Compositions for Practicing the Same
;  FILE REFERENCE: BIOS-001CIP
;  CURRENT APPLICATION NUMBER: US/10/222,943A
;  CURRENT FILING DATE:  2002-08-15
;  PRIOR APPLICATION NUMBER: 10/087,229
;  PRIOR FILING DATE: 2002-02-27
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
;   LENGTH: 27
;   TYPE: DNA
;   ORGANISM: human
US-10-222-943A-3

  Query Match             4.4%;  Score 27;  DB 1;  Length 27;
  Best Local Similarity   100.0%;  Pred. No. 14;
  Matches   27;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        522 CCTGTGGATGACTGAGTACCTGAACCG 548
              |||||||||||||||||||||||||||
Db          1 CCTGTGGATGACTGAGTACCTGAACCG 27


RESULT 10
US-10-222-943A-4
; Sequence 4, Application US/10222943A
; Publication No. US20030165920A1
; GENERAL INFORMATION:
;  APPLICANT: Chou, Quin
;  APPLICANT:  Cabradilla JR, Cirilo D.
;  TITLE OF INVENTION: Methods of Using FET Labeled
;  TITLE OF INVENTION:  Oligonucleotides That Include a 3'-5' Exonuclease Resistant
;  TITLE OF INVENTION:  Quencher Domain and Compositions for Practicing the Same
;  FILE REFERENCE: BIOS-001CIP
;  CURRENT APPLICATION NUMBER: US/10/222,943A
;  CURRENT FILING DATE:  2002-08-15
;  PRIOR APPLICATION NUMBER: 10/087,229
;  PRIOR FILING DATE: 2002-02-27
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 4
;   LENGTH: 27
;   TYPE: DNA
;   ORGANISM: human
US-10-222-943A-4

  Query Match             4.4%;  Score 27;  DB 1;  Length 27;
  Best Local Similarity   100.0%;  Pred. No. 14;
  Matches   27;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        522 CCTGTGGATGACTGAGTACCTGAACCG 548
              |||||||||||||||||||||||||||
Db          1 CCTGTGGATGACTGAGTACCTGAACCG 27


RESULT 11
US-10-222-943A-5
; Sequence 5, Application US/10222943A
; Publication No. US20030165920A1
; GENERAL INFORMATION:
;  APPLICANT: Chou, Quin
;  APPLICANT:  Cabradilla JR, Cirilo D.
;  TITLE OF INVENTION: Methods of Using FET Labeled
;  TITLE OF INVENTION:  Oligonucleotides That Include a 3'-5' Exonuclease Resistant
;  TITLE OF INVENTION:  Quencher Domain and Compositions for Practicing the Same
;  FILE REFERENCE: BIOS-001CIP
;  CURRENT APPLICATION NUMBER: US/10/222,943A
;  CURRENT FILING DATE:  2002-08-15
;  PRIOR APPLICATION NUMBER: 10/087,229
;  PRIOR FILING DATE: 2002-02-27
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 5
;   LENGTH: 27
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;   TYPE: DNA
;   ORGANISM: human
US-10-222-943A-5

  Query Match             4.4%;  Score 27;  DB 1;  Length 27;
  Best Local Similarity   100.0%;  Pred. No. 14;
  Matches   27;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        522 CCTGTGGATGACTGAGTACCTGAACCG 548
              |||||||||||||||||||||||||||
Db          1 CCTGTGGATGACTGAGTACCTGAACCG 27


RESULT 12
US-10-222-943A-6
; Sequence 6, Application US/10222943A
; Publication No. US20030165920A1
; GENERAL INFORMATION:
;  APPLICANT: Chou, Quin
;  APPLICANT:  Cabradilla JR, Cirilo D.
;  TITLE OF INVENTION: Methods of Using FET Labeled
;  TITLE OF INVENTION:  Oligonucleotides That Include a 3'-5' Exonuclease Resistant
;  TITLE OF INVENTION:  Quencher Domain and Compositions for Practicing the Same
;  FILE REFERENCE: BIOS-001CIP
;  CURRENT APPLICATION NUMBER: US/10/222,943A
;  CURRENT FILING DATE:  2002-08-15
;  PRIOR APPLICATION NUMBER: 10/087,229
;  PRIOR FILING DATE: 2002-02-27
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 6
;   LENGTH: 27
;   TYPE: DNA
;   ORGANISM: human
US-10-222-943A-6

  Query Match             4.4%;  Score 27;  DB 1;  Length 27;
  Best Local Similarity   100.0%;  Pred. No. 14;
  Matches   27;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        522 CCTGTGGATGACTGAGTACCTGAACCG 548
              |||||||||||||||||||||||||||
Db          1 CCTGTGGATGACTGAGTACCTGAACCG 27


RESULT 13
US-10-222-943A-7
; Sequence 7, Application US/10222943A
; Publication No. US20030165920A1
; GENERAL INFORMATION:
;  APPLICANT: Chou, Quin
;  APPLICANT:  Cabradilla JR, Cirilo D.
;  TITLE OF INVENTION: Methods of Using FET Labeled
;  TITLE OF INVENTION:  Oligonucleotides That Include a 3'-5' Exonuclease Resistant
;  TITLE OF INVENTION:  Quencher Domain and Compositions for Practicing the Same
;  FILE REFERENCE: BIOS-001CIP
;  CURRENT APPLICATION NUMBER: US/10/222,943A
;  CURRENT FILING DATE:  2002-08-15
;  PRIOR APPLICATION NUMBER: 10/087,229
;  PRIOR FILING DATE: 2002-02-27
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 7
;   LENGTH: 27
;   TYPE: DNA
;   ORGANISM: human
US-10-222-943A-7

  Query Match             4.4%;  Score 27;  DB 1;  Length 27;
  Best Local Similarity   100.0%;  Pred. No. 14;
  Matches   27;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        522 CCTGTGGATGACTGAGTACCTGAACCG 548
              |||||||||||||||||||||||||||
Db          1 CCTGTGGATGACTGAGTACCTGAACCG 27


RESULT 14
US-10-148-953A-15/c
; Sequence 15, Application US/10148953A
; Publication No. US20040053228A1
; GENERAL INFORMATION:
;  APPLICANT: SHIBAZAKI, FUTOSHI
;  APPLICANT:  KUMA, HIDEKAZU
;  TITLE OF INVENTION: APOPTOSIS-INHIBITING POLYPEPTIDES, GENES AND POLYNUCLEOTIDES
;  TITLE OF INVENTION:  ENCODING SAME, AND COMPOSITIONS CONTAINING THEM
;  FILE REFERENCE: 7388/73088
;  CURRENT APPLICATION NUMBER: US/10/148,953A
;  CURRENT FILING DATE:  2003-04-10
;  PRIOR APPLICATION NUMBER: PCT/JP00/08667
;  PRIOR FILING DATE: 2000-12-07
;  PRIOR APPLICATION NUMBER: JP 11/350427
;  PRIOR FILING DATE: 1999-12-09
;  NUMBER OF SEQ ID NOS: 21
;  SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 15
;   LENGTH: 27
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Primer
US-10-148-953A-15

  Query Match             4.1%;  Score 25.4;  DB 1;  Length 27;
  Best Local Similarity   96.3%;  Pred. No. 20;
  Matches   26;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        334 TTCGCCGAGATGTCCAGCCAGCTGCAC 360
              |||||||||||| ||||||||||||||
Db         27 TTCGCCGAGATGGCCAGCCAGCTGCAC 1


RESULT 15
US-09-920-342-11
; Sequence 11, Application US/09920342
; Patent No. US20020137709A1
; GENERAL INFORMATION:
;  APPLICANT: University of Southern California
;  APPLICANT:  Lin, Shi-Lung
;  APPLICANT:  Chuong, Cheng-Ming
;  APPLICANT:  Widelitz, Randall B.
;  TITLE OF INVENTION: GENE SILENCING USING MRNA-CDNA HYBRIDS
;  FILE REFERENCE: 13761-7024
;  CURRENT APPLICATION NUMBER: US/09/920,342
;  CURRENT FILING DATE:  2002-01-17
;  PRIOR APPLICATION NUMBER: US 60/222,479
;  PRIOR FILING DATE: 2000-08-02
;  NUMBER OF SEQ ID NOS: 15
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 11
;   LENGTH: 24
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: bc12 primer
US-09-920-342-11

  Query Match             3.9%;  Score 24;  DB 1;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        527 GGATGACTGAGTACCTGAACCGGC 550
              ||||||||||||||||||||||||
Db          1 GGATGACTGAGTACCTGAACCGGC 24
```

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RESULT 16
US-10-384-260-2/c
; Sequence 2, Application US/10384260
; Publication No. US20040001811A1
; GENERAL INFORMATION:
;  APPLICANT: Kreutzer, Roland
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR INHIBITING EXPRESSION OF ANTI-APOPTC
;  TITLE OF INVENTION:  GENES
;  FILE REFERENCE: 20200/2102
;  CURRENT APPLICATION NUMBER: US/10/384,260
;  CURRENT FILING DATE:  2003-03-07
;  PRIOR APPLICATION NUMBER: DE 10100586.5
;  PRIOR FILING DATE: 2001-01-09
;  PRIOR APPLICATION NUMBER: PCT/EP02/00151
;  PRIOR FILING DATE: 2002-01-09
;  NUMBER OF SEQ ID NOS: 6
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
;   LENGTH: 24
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   OTHER INFORMATION: antisense strand of dsRNA that is complementary to a sequence of
;   OTHER INFORMATION: the human Bcl-2 gene
US-10-384-260-2

  Query Match             3.9%;  Score 24;  DB 1;  Length 24;
  Best Local Similarity   100.0%;  Pred. No. 24;
  Matches   24;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        199 GCCAGGACCTCGCCGCTGCAGACC 222
              ||||||||||||||||||||||||
Db         24 GCCAGGACCTCGCCGCTGCAGACC 1


RESULT 17
US-10-714-310-21
; Sequence 21, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
;  PRIOR FILING DATE: 2002-11-14
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 21
;   LENGTH: 23
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-714-310-21

  Query Match             3.7%;  Score 23;  DB 1;  Length 23;
  Best Local Similarity   100.0%;  Pred. No. 29;
  Matches   23;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        363 GACGCCCTTCACCGCGCGGGGAC 385
              |||||||||||||||||||||||
Db          1 GACGCCCTTCACCGCGCGGGGAC 23


RESULT 18
US-09-371-900-11/c
; Sequence 11, Application US/09371900
; Patent No. US20020137700A1
;   GENERAL INFORMATION:
;        APPLICANT: FALB, DEAN A
;        TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
;                            TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;        NUMBER OF SEQUENCES: 54
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: PENNIE & EDMONDS LLP
;             STREET: 1155 Avenue of the Americas
;             CITY: New York
;             STATE: New York
;             COUNTRY: USA
;             ZIP: 10036-2711
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/371,900
;             FILING DATE: 11-Aug-1999
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US 08/599,654
;             FILING DATE: 09-FEB-1996
;             APPLICATION NUMBER: US 08/485,573
;             FILING DATE: 07-JUN-1995
;             APPLICATION NUMBER: US 08/386,844
;             FILING DATE: 10-FEB-1995
;        ATTORNEY/AGENT INFORMATION:
;             NAME: CORUZZI, LAURA A
;             REGISTRATION NUMBER: 30,742
;             REFERENCE/DOCKET NUMBER: 7853-104
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (212) 790-9090
;             TELEFAX: (212) 869-8864
;             TELEX: 66141 PENNIE
;   INFORMATION FOR SEQ ID NO: 11:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 24 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: other nucleic acid
;             DESCRIPTION: /desc = "synthetic oligonucleotide"
;        HYPOTHETICAL: NO
;        SEQUENCE DESCRIPTION: SEQ ID NO: 11:
US-09-371-900-11

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 34;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 19
US-09-970-820-11/c
; Sequence 11, Application US/09970820
; Patent No. US20020170077A1
;   GENERAL INFORMATION:
;        APPLICANT: FALB, DEAN A.
;        TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
;                            TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;        NUMBER OF SEQUENCES: 38
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: PENNIE & EDMONDS
;             STREET: 1155 Avenue of the Americas
;             CITY: New York
;             STATE: New York
;             COUNTRY: USA
;             ZIP: 10036-2711
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
```

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;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/970,820
;             FILING DATE: 05-Oct-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US 08/386,844
;             FILING DATE: 10-FEB-1995
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Coruzzi, Laura A.
;             REGISTRATION NUMBER: 30,742
;             REFERENCE/DOCKET NUMBER: 7853-032
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (212) 790-9090
;             TELEFAX: (212) 869-8864
;             TELEX: 66141 PENNIE
;   INFORMATION FOR SEQ ID NO: 11:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 24 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (genomic)
;        HYPOTHETICAL: NO
;        SEQUENCE DESCRIPTION: SEQ ID NO: 11:
US-09-970-820-11

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 34;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 20
US-09-986-718-11/c
; Sequence 11, Application US/09986718
; Patent No. US20020178458A1
;   GENERAL INFORMATION:
;        APPLICANT: FALB, DEAN A.
;        TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
;                            TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;        NUMBER OF SEQUENCES: 38
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: PENNIE & EDMONDS
;             STREET: 1155 Avenue of the Americas
;             CITY: New York
;             STATE: New York
;             COUNTRY: USA
;             ZIP: 10036-2711
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/09/986,718
;             FILING DATE: 09-No. US20020178458A1-2001
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: 08/485,573
;             FILING DATE: <Unknown>
;        ATTORNEY/AGENT INFORMATION:
;             NAME: Coruzzi, Laura A.
;             REGISTRATION NUMBER: 30,742
;             REFERENCE/DOCKET NUMBER: 7853-032
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (212) 790-9090
;             TELEFAX: (212) 869-8864
;             TELEX: 66141 PENNIE
;   INFORMATION FOR SEQ ID NO: 11:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 24 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: DNA (genomic)
;        HYPOTHETICAL: NO
;        SEQUENCE DESCRIPTION: SEQ ID NO: 11:
US-09-986-718-11

  Query Match             3.6%;  Score 22.4;  DB 1;  Length 24;
  Best Local Similarity   95.8%;  Pred. No. 34;
  Matches   23;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        417 GGACGGGGTGAACTGGGGGAGGAT 440
              ||| ||||||||||||||||||||||
Db         24 GGATGGGGTGAACTGGGGGAGGAT 1


RESULT 21
US-10-186-950-11/c
; Sequence 11, Application US/10186950
; Publication No. US20030188327A1
;   GENERAL INFORMATION:
;        APPLICANT: FALB, DEAN A
;        TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
;                            TREATMENT AND DIAGNOSIS OF CARDIOVASCULAR DISEASE
;        NUMBER OF SEQUENCES: 54
;        CORRESPONDENCE ADDRESS:
;             ADDRESSEE: PENNIE & EDMONDS LLP
;             STREET: 1155 Avenue of the Americas
;             CITY: New York
;             STATE: New York
;             COUNTRY: USA
;             ZIP: 10036-2711
;        COMPUTER READABLE FORM:
;             MEDIUM TYPE: Floppy disk
;             COMPUTER: IBM PC compatible
;             OPERATING SYSTEM: PC-DOS/MS-DOS
;             SOFTWARE: PatentIn Release #1.0, Version #1.30
;        CURRENT APPLICATION DATA:
;             APPLICATION NUMBER: US/10/186,950
;             FILING DATE: 02-Jul-2002
;             CLASSIFICATION: <Unknown>
;        PRIOR APPLICATION DATA:
;             APPLICATION NUMBER: US/08/944,496
;             FILING DATE: <Unknown>
;             APPLICATION NUMBER: US 08/599,654
;             FILING DATE: 09-FEB-1996
;             APPLICATION NUMBER: US 08/485,573
;             FILING DATE: 07-JUN-1995
;             APPLICATION NUMBER: US 08/386,844
;             FILING DATE: 10-FEB-1995
;        ATTORNEY/AGENT INFORMATION:
;             NAME: CORUZZI, LAURA A
;             REGISTRATION NUMBER: 30,742
;             REFERENCE/DOCKET NUMBER: 7853-104
;        TELECOMMUNICATION INFORMATION:
;             TELEPHONE: (212) 790-9090
;             TELEFAX: (212) 869-8864
;             TELEX: 66141 PENNIE
;   INFORMATION FOR SEQ ID NO: 11:
;        SEQUENCE CHARACTERISTICS:
;             LENGTH: 24 base pairs
;             TYPE: nucleic acid
;             STRANDEDNESS: single
;             TOPOLOGY: linear
;        MOLECULE TYPE: other nucleic acid
;             DESCRIPTION: /desc = "synthetic oligonucleotide"
;        HYPOTHETICAL: NO
;        SEQUENCE DESCRIPTION: SEQ ID NO: 11:
```

US-10-186-950-11

Query Match 3.6%; Score 22.4; DB 1; Length 24;
Best Local Similarity 95.8%; Pred. No. 34;
Matches 23; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 417 GGACGGGGTGAACTGGGGGAGGAT 440
||| ||||||||||||||||||||
Db 24 GGATGGGGTGAACTGGGGGAGGAT 1

RESULT 22
US-09-931-732-21
; Sequence 21, Application US/09931732
; Publication No. US20030045488A1
; GENERAL INFORMATION:
; APPLICANT: Brown, Bob D.
; APPLICANT: Riley, Timothy A.
; TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES COMPRISING
; TITLE OF INVENTION: UNIVERSAL AND/OR DEGENERATE BASES
; FILE REFERENCE: OASBIO.001C1
; CURRENT APPLICATION NUMBER: US/09/931,732
; CURRENT FILING DATE: 2001-08-16
; PRIOR APPLICATION NUMBER: PCT/US00/09293
; PRIOR FILING DATE: 2000-04-07
; PRIOR APPLICATION NUMBER: US 60/128,377
; PRIOR FILING DATE: 1999-04-08
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 21
; LENGTH: 22
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide primers
US-09-931-732-21

Query Match 3.6%; Score 22; DB 1; Length 22;
Best Local Similarity 100.0%; Pred. No. 35;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 264 GGTGCCACCTGTGGTCCACCTG 285
||||||||||||||||||||||
Db 1 GGTGCCACCTGTGGTCCACCTG 22

RESULT 23
US-10-142-566-51
; Sequence 51, Application US/10142566
; Publication No. US20030119016A1
; GENERAL INFORMATION:
; APPLICANT: Riley, Timothy A.
; APPLICANT: Brown, Bob D.
; APPLICANT: Arnold, Lyle J.
; TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES WITH INCREASED RNASE SENSITIVITY
; FILE REFERENCE: OASBIO.003DV1
; CURRENT APPLICATION NUMBER: US/10/142,566
; CURRENT FILING DATE: 2002-08-06
; PRIOR APPLICATION NUMBER: US 09/136,080
; PRIOR FILING DATE: 1998-08-18
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 51
; LENGTH: 22
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic oligonucleotide
US-10-142-566-51

Query Match 3.6%; Score 22; DB 1; Length 22;
Best Local Similarity 100.0%; Pred. No. 35;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 264 GGTGCCACCTGTGGTCCACCTG 285
||||||||||||||||||||||
Db 1 GGTGCCACCTGTGGTCCACCTG 22

RESULT 24
US-10-142-666-87
; Sequence 87, Application US/10142666
; Publication No. US20030171315A1
; GENERAL INFORMATION:
; APPLICANT: Brown, Bob D.
; APPLICANT: Riley, Timothy A.
; TITLE OF INVENTION: OLIGONUCLEOTIDE PROBES AND PRIMERS
; TITLE OF INVENTION: COMPRISING UNIVERSAL BASES FOR THERAPEUTIC PURPOSES
; FILE REFERENCE: OASBIO.016A
; CURRENT APPLICATION NUMBER: US/10/142,666
; CURRENT FILING DATE: 2002-08-29
; PRIOR APPLICATION NUMBER: 60/306,229
; PRIOR FILING DATE: 2001-07-18
; PRIOR APPLICATION NUMBER: 09/136,080
; PRIOR FILING DATE: 1998-08-18
; PRIOR APPLICATION NUMBER: 60/060,673
; PRIOR FILING DATE: 1997-10-02
; NUMBER OF SEQ ID NOS: 88
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 87
; LENGTH: 22
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Artificial Oligonucleotides
US-10-142-666-87

Query Match 3.6%; Score 22; DB 1; Length 22;
Best Local Similarity 100.0%; Pred. No. 35;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 264 GGTGCCACCTGTGGTCCACCTG 285
||||||||||||||||||||||
Db 1 GGTGCCACCTGTGGTCCACCTG 22

RESULT 25
US-10-313-669-228
; Sequence 228, Application US/10313669
; Publication No. US20030175761A1
; GENERAL INFORMATION:
; APPLICANT: Greenlee, Winner and Sullivan, P.C.
; TITLE OF INVENTION: Identification of genes whose expression patterns distinguish beni
; TITLE OF INVENTION: lymphoid tissue and mantle cell, follicular, and small lymphocyti
; FILE REFERENCE: 142-01
; CURRENT APPLICATION NUMBER: US/10/313,669
; CURRENT FILING DATE: 2002-12-06
; NUMBER OF SEQ ID NOS: 302
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 228
; LENGTH: 22
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-313-669-228

Query Match 3.6%; Score 22; DB 1; Length 22;
Best Local Similarity 100.0%; Pred. No. 35;
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 529 ATGACTGAGTACCTGAACCGGC 550
||||||||||||||||||||||
Db 1 ATGACTGAGTACCTGAACCGGC 22

RESULT 26
US-10-384-260-1

```
; Sequence 1, Application US/10384260
; Publication No. US20040001811A1
; GENERAL INFORMATION:
;  APPLICANT: Kreutzer, Roland
;  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR INHIBITING EXPRESSION OF ANTI-APOPTC
;  TITLE OF INVENTION:  GENES
;  FILE REFERENCE: 20200/2102
;  CURRENT APPLICATION NUMBER: US/10/384,260
;  CURRENT FILING DATE:  2003-03-07
;  PRIOR APPLICATION NUMBER: DE 10100586.5
;  PRIOR FILING DATE: 2001-01-09
;  PRIOR APPLICATION NUMBER: PCT/EP02/00151
;  PRIOR FILING DATE: 2002-01-09
;  NUMBER OF SEQ ID NOS: 6
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 1
;   LENGTH: 22
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   OTHER INFORMATION: sense strand of dsRNA that is complementary to a sequence of the
;   OTHER INFORMATION: human Bcl-2 gene
US-10-384-260-1

  Query Match             3.6%;  Score 22;  DB 1;  Length 22;
  Best Local Similarity   90.9%;  Pred. No. 35;
  Matches   20;  Conservative    2;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        201 CAGGACCTCGCCGCTGCAGACC 222
              ||||||:||||||:||||||
Db          1 CAGGACCUCGCCGCUGCAGACC 22


RESULT 27
US-10-087-229-1
; Sequence 1, Application US/10087229
; Publication No. US20030162184A1
; GENERAL INFORMATION:
;  APPLICANT: Chou, Quin
;  APPLICANT:  Cabradilla, Cirilo D.
;  TITLE OF INVENTION: Methods of Using FET Labeled
;  TITLE OF INVENTION:  Oligonucleotides That Include a 3'-5' Exonuclease Resistant
;  TITLE OF INVENTION:  Quencher Domain and Compositions for Practicing the Same
;  FILE REFERENCE: BIOS-001
;  CURRENT APPLICATION NUMBER: US/10/087,229
;  CURRENT FILING DATE:  2002-02-27
;  NUMBER OF SEQ ID NOS: 22
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
;   LENGTH: 21
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligonucleotide
US-10-087-229-1

  Query Match             3.4%;  Score 21;  DB 1;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 41;
  Matches   21;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        396 GGTGGTGGAGGAGCTCTTCAG 416
              |||||||||||||||||||||
Db          1 GGTGGTGGAGGAGCTCTTCAG 21


RESULT 28
US-10-222-943A-1
; Sequence 1, Application US/10222943A
; Publication No. US20030165920A1
; GENERAL INFORMATION:
;  APPLICANT: Chou, Quin
;  APPLICANT:  Cabradilla JR, Cirilo D.
;  TITLE OF INVENTION: Methods of Using FET Labeled
;  TITLE OF INVENTION:  Oligonucleotides That Include a 3'-5' Exonuclease Resistant
;  TITLE OF INVENTION:  Quencher Domain and Compositions for Practicing the Same
;  FILE REFERENCE: BIOS-001CIP
;  CURRENT APPLICATION NUMBER: US/10/222,943A
;  CURRENT FILING DATE:  2002-08-15
;  PRIOR APPLICATION NUMBER: 10/087,229
;  PRIOR FILING DATE: 2002-02-27
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
;   LENGTH: 21
;   TYPE: DNA
;   ORGANISM: human
US-10-222-943A-1

  Query Match             3.4%;  Score 21;  DB 1;  Length 21;
  Best Local Similarity   100.0%;  Pred. No. 41;
  Matches   21;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        396 GGTGGTGGAGGAGCTCTTCAG 416
              |||||||||||||||||||||
Db          1 GGTGGTGGAGGAGCTCTTCAG 21


RESULT 29
US-10-087-229-2/c
; Sequence 2, Application US/10087229
; Publication No. US20030162184A1
; GENERAL INFORMATION:
;  APPLICANT: Chou, Quin
;  APPLICANT:  Cabradilla, Cirilo D.
;  TITLE OF INVENTION: Methods of Using FET Labeled
;  TITLE OF INVENTION:  Oligonucleotides That Include a 3'-5' Exonuclease Resistant
;  TITLE OF INVENTION:  Quencher Domain and Compositions for Practicing the Same
;  FILE REFERENCE: BIOS-001
;  CURRENT APPLICATION NUMBER: US/10/087,229
;  CURRENT FILING DATE:  2002-02-27
;  NUMBER OF SEQ ID NOS: 22
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
;   LENGTH: 20
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthetic oligonucleotide
US-10-087-229-2

  Query Match             3.3%;  Score 20;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 48;
  Matches   20;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        566 TCCAGGATAACGGAGGCTGG 585
              ||||||||||||||||||||
Db         20 TCCAGGATAACGGAGGCTGG 1


RESULT 30
US-10-222-943A-2/c
; Sequence 2, Application US/10222943A
; Publication No. US20030165920A1
; GENERAL INFORMATION:
;  APPLICANT: Chou, Quin
;  APPLICANT:  Cabradilla JR, Cirilo D.
;  TITLE OF INVENTION: Methods of Using FET Labeled
;  TITLE OF INVENTION:  Oligonucleotides That Include a 3'-5' Exonuclease Resistant
;  TITLE OF INVENTION:  Quencher Domain and Compositions for Practicing the Same
;  FILE REFERENCE: BIOS-001CIP
;  CURRENT APPLICATION NUMBER: US/10/222,943A
;  CURRENT FILING DATE:  2002-08-15
;  PRIOR APPLICATION NUMBER: 10/087,229
;  PRIOR FILING DATE: 2002-02-27
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: FastSEQ for Windows Version 4.0
```

; SEQ ID NO 2
; LENGTH: 20
; TYPE: DNA
; ORGANISM: human
US-10-222-943A-2

Query Match 3.3%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 48;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        566 TCCAGGATAACGGAGGCTGG 585
              ||||||||||||||||||||
Db         20 TCCAGGATAACGGAGGCTGG 1
```

RESULT 31
US-10-053-645A-3/c
; Sequence 3, Application US/10053645A
; Publication No. US20030176376A1
; GENERAL INFORMATION:
; APPLICANT: Robert E. Klem
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TREATING A
; TITLE OF INVENTION: CELL-PROLIFERATIVE DISORDER USING CRE DECOY OLIGOMERS, BCL-2
; TITLE OF INVENTION: ANTISENSE OLIGOMERS, AND HYBRID OLIGOMERS THEREOF
; FILE REFERENCE: 10412-022-999
; CURRENT APPLICATION NUMBER: US/10/053,645A
; CURRENT FILING DATE: 2002-01-22
; PRIOR APPLICATION NUMBER: 60/263,244
; PRIOR FILING DATE: 2001-01-22
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 3
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Description of artificial sequence: Synthetic Antisense
; OTHER INFORMATION: Oligionucleotide
US-10-053-645A-3

Query Match 3.3%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 48;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        577 GGAGGCTGGGTAGGTGCATC 596
              ||||||||||||||||||||
Db         20 GGAGGCTGGGTAGGTGCATC 1
```

RESULT 32
US-10-714-310-29/c
; Sequence 29, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Zhidong
; APPLICANT: Ruffner, Duane E.
; APPLICANT: Prakash, Ramesh
; APPLICANT: Koehn, Richard
; TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
; FILE REFERENCE: 12475/50102
; CURRENT APPLICATION NUMBER: US/10/714,310
; CURRENT FILING DATE: 2003-11-14
; PRIOR APPLICATION NUMBER: US 60/426,269
; PRIOR FILING DATE: 2002-11-14
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 29
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-714-310-29

Query Match 3.3%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 48;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        294 CCAAGCCGGCGACGACTTCT 313
              ||||||||||||||||||||
Db         20 CCAAGCCGGCGACGACTTCT 1
```

RESULT 33
US-10-714-310-30/c
; Sequence 30, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Zhidong
; APPLICANT: Ruffner, Duane E.
; APPLICANT: Prakash, Ramesh
; APPLICANT: Koehn, Richard
; TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
; FILE REFERENCE: 12475/50102
; CURRENT APPLICATION NUMBER: US/10/714,310
; CURRENT FILING DATE: 2003-11-14
; PRIOR APPLICATION NUMBER: US 60/426,269
; PRIOR FILING DATE: 2002-11-14
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 30
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-714-310-30

Query Match 3.3%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 48;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        330 CGACTTCGCCGAGATGTCCA 349
              ||||||||||||||||||||
Db         20 CGACTTCGCCGAGATGTCCA 1
```

RESULT 34
US-10-714-310-31/c
; Sequence 31, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Zhidong
; APPLICANT: Ruffner, Duane E.
; APPLICANT: Prakash, Ramesh
; APPLICANT: Koehn, Richard
; TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
; FILE REFERENCE: 12475/50102
; CURRENT APPLICATION NUMBER: US/10/714,310
; CURRENT FILING DATE: 2003-11-14
; PRIOR APPLICATION NUMBER: US 60/426,269
; PRIOR FILING DATE: 2002-11-14
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 31
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-714-310-31

Query Match 3.3%; Score 20; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 48;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        363 GACGCCCTTCACCGCGCGGG 382
              ||||||||||||||||||||
Db         20 GACGCCCTTCACCGCGCGGG 1
```

RESULT 35

```
US-09-932-129-1
; Sequence 1, Application US/09932129
; Patent No. US20020119533A1
; GENERAL INFORMATION:
;  APPLICANT: Brown, Bob D.
;  TITLE OF INVENTION: AMPLIFICATION PRIMER PAIRS AND USE
;  TITLE OF INVENTION:  THEREOF
;  FILE REFERENCE: OASBIO.002C1
;  CURRENT APPLICATION NUMBER: US/09/932,129
;  CURRENT FILING DATE:  2001-08-16
;  PRIOR APPLICATION NUMBER: PCT/US00/09230
;  PRIOR FILING DATE: 2000-04-07
;  PRIOR APPLICATION NUMBER: US 60/128,378
;  PRIOR FILING DATE: 1999-04-08
;  NUMBER OF SEQ ID NOS: 12
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
;   LENGTH: 19
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide primers
US-09-932-129-1

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 57;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        267 GCCACCTGTGGTCCACCTG 285
              |||||||||||||||||||
Db          1 GCCACCTGTGGTCCACCTG 19


RESULT 36
US-10-409-107A-31
; Sequence 31, Application US/10409107A
; Publication No. US20040053288A1
; GENERAL INFORMATION:
;  APPLICANT: YANAI, Yoshiaki
;  APPLICANT:  YAMAMOTO, Shigeto
;  APPLICANT:  YAMAMOTO, Kozo
;  APPLICANT:  IKEGAMI, Hakuo
;  TITLE OF INVENTION: Method for estimating therapeutic efficacy of tumor necrosis
;  TITLE OF INVENTION:  factor
;  FILE REFERENCE: YANAI=3
;  CURRENT APPLICATION NUMBER: US/10/409,107A
;  CURRENT FILING DATE:  2003-04-19
;  PRIOR APPLICATION NUMBER: JP 107126/2002
;  PRIOR FILING DATE: 2002-04-09
;  NUMBER OF SEQ ID NOS: 100
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 31
;   LENGTH: 19
;   TYPE: DNA
;   ORGANISM: Artificial
;   FEATURE:
;   OTHER INFORMATION: Oligonucleotide used as primer for PCR detection of Bcl-2 mRNA
US-10-409-107A-31

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 57;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        356 TGCACCTGACGCCCTTCAC 374
              |||||||||||||||||||
Db          1 TGCACCTGACGCCCTTCAC 19


RESULT 37
US-10-033-024A-23
; Sequence 23, Application US/10033024A
; Publication No. US20030105043A1
; GENERAL INFORMATION:
; APPLICANT: Ho, Shuk-Mei
;  APPLICANT:  Lau, Kin-Mang
;  APPLICANT:  Lee, Kai-Fai
;  TITLE OF INVENTION: APOPTOSIS-INDUCING RIBOZYMES
;  FILE REFERENCE: 07917-110001
;  CURRENT APPLICATION NUMBER: US/10/033,024A
;  CURRENT FILING DATE:  2002-10-17
;  PRIOR APPLICATION NUMBER: US 60/244,709
;  PRIOR FILING DATE: 2000-10-31
;  NUMBER OF SEQ ID NOS: 68
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 23
;   LENGTH: 19
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: nt 386-404; forward primer for amplification from
;   OTHER INFORMATION: bcI-2 cDNA
US-10-033-024A-23

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 57;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        356 TGCACCTGACGCCCTTCAC 374
              |||||||||||||||||||
Db          1 TGCACCTGACGCCCTTCAC 19


RESULT 38
US-10-621-009-1
; Sequence 1, Application US/10621009
; Publication No. US20040014129A1
; GENERAL INFORMATION:
;  APPLICANT: Brown, Bob D.
;  TITLE OF INVENTION: AMPLIFICATION PRIMER PAIRS AND USE
;  TITLE OF INVENTION:  THEREOF
;  FILE REFERENCE: OASBIO.002C2
;  CURRENT APPLICATION NUMBER: US/10/621,009
;  CURRENT FILING DATE:  2003-07-15
;  PRIOR APPLICATION NUMBER: US 09/932,129
;  PRIOR FILING DATE: 2001-08-16
;  PRIOR APPLICATION NUMBER: PCT/US00/09230
;  PRIOR FILING DATE: 2000-04-07
;  PRIOR APPLICATION NUMBER: US 60/128,378
;  PRIOR FILING DATE: 1999-04-08
;  NUMBER OF SEQ ID NOS: 12
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 1
;   LENGTH: 19
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide primers
US-10-621-009-1

  Query Match             3.1%;  Score 19;  DB 1;  Length 19;
  Best Local Similarity   100.0%;  Pred. No. 57;
  Matches   19;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        267 GCCACCTGTGGTCCACCTG 285
              |||||||||||||||||||
Db          1 GCCACCTGTGGTCCACCTG 19


RESULT 39
US-09-932-300-72/c
; Sequence 72, Application US/09932300
; Publication No. US20030032788A1
; GENERAL INFORMATION:
;  APPLICANT: GARVER, Eric
;  APPLICANT:  TU, Guang-Chou
;  APPLICANT:  ISRAEL, Yedy
```

; TITLE OF INVENTION: METHODS OF INHIBITING ALCOHOL CONSUMPTION
; FILE REFERENCE: 9855-3U2
; CURRENT APPLICATION NUMBER: US/09/932,300
; CURRENT FILING DATE: 2001-08-20
; PRIOR APPLICATION NUMBER: US 60/051,705
; PRIOR FILING DATE: 1997-07-03
; PRIOR APPLICATION NUMBER: US 09/109,663
; PRIOR FILING DATE: 1998-07-02
; NUMBER OF SEQ ID NOS: 111
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 72
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Known
; OTHER INFORMATION: effective ASO
US-09-932-300-72

Query Match 3.0%; Score 18.4; DB 1; Length 20;
Best Local Similarity 95.0%; Pred. No. 67;
Matches 19; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGAAC 20
||||| ||||||||||||||
Db 20 ATGGCACACGCTGGGAGAAC 1

RESULT 40
US-09-781-980-1/c
; Sequence 1, Application US/09781980
; Publication No. US20010029035A1
; GENERAL INFORMATION:
; APPLICANT: EISENHUT, MICHAEL
; APPLICANT: MIER, WALTER
; APPLICANT: ERITJA, RAMON
; APPLICANT: HABERKORN, UWE
; TITLE OF INVENTION: OLIGONUCLEOTIDE CONJUGATES
; FILE REFERENCE: 2502498.991110
; CURRENT APPLICATION NUMBER: US/09/781,980
; CURRENT FILING DATE: 2001-02-14
; PRIOR APPLICATION NUMBER: DE 100 06 572
; PRIOR FILING DATE: 2000-02-14
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: oligonucleotide
US-09-781-980-1

Query Match 3.0%; Score 18.4; DB 1; Length 20;
Best Local Similarity 95.0%; Pred. No. 67;
Matches 19; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGAAC 20
||||| ||||||||||||||
Db 20 ATGGCACACGCTGGGAGAAC 1

RESULT 41
US-09-781-980-3
; Sequence 3, Application US/09781980
; Publication No. US20010029035A1
; GENERAL INFORMATION:
; APPLICANT: EISENHUT, MICHAEL
; APPLICANT: MIER, WALTER
; APPLICANT: ERITJA, RAMON
; APPLICANT: HABERKORN, UWE
; TITLE OF INVENTION: OLIGONUCLEOTIDE CONJUGATES
; FILE REFERENCE: 2502498.991110
; CURRENT APPLICATION NUMBER: US/09/781,980
; CURRENT FILING DATE: 2001-02-14
; PRIOR APPLICATION NUMBER: DE 100 06 572
; PRIOR FILING DATE: 2000-02-14
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: oligonucleotide
US-09-781-980-3

Query Match 3.0%; Score 18.4; DB 1; Length 20;
Best Local Similarity 95.0%; Pred. No. 67;
Matches 19; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGAAC 20
||||| ||||||||||||||
Db 1 ATGGCACACGCTGGGAGAAC 20

RESULT 42
US-09-824-468-59/c
; Sequence 59, Application US/09824468
; Patent No. US20020064515A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Weiner, George
; TITLE OF INVENTION: Methods and Products for Stimulating the
; TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
; TITLE OF INVENTION: Cytokines
; FILE REFERENCE: C1039/7026/HCL
; CURRENT APPLICATION NUMBER: US/09/824,468
; CURRENT FILING DATE: 2001-04-02
; PRIOR APPLICATION NUMBER: 09/286,098
; PRIOR FILING DATE: 1999-04-02
; NUMBER OF SEQ ID NOS: 105
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 59
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-824-468-59

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 43
US-09-824-468-104/c
; Sequence 104, Application US/09824468
; Patent No. US20020064515A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Weiner, George
; TITLE OF INVENTION: Methods and Products for Stimulating the
; TITLE OF INVENTION: Immune System Using Immunotherapeutic Oligonucleotides and
; TITLE OF INVENTION: Cytokines
; FILE REFERENCE: C1039/7026/HCL
; CURRENT APPLICATION NUMBER: US/09/824,468
; CURRENT FILING DATE: 2001-04-02
; PRIOR APPLICATION NUMBER: 09/286,098

```
;  PRIOR FILING DATE: 1999-04-02
;  NUMBER OF SEQ ID NOS: 105
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 104
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-824-468-104

  Query Match              2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 44
US-09-965-116A-7
; Sequence 7, Application US/09965116A
; Patent No. US20020137714A1
; GENERAL INFORMATION:
;  APPLICANT: Kandimalla, Ekambar R.
;  APPLICANT:  Zhao, Qiuyan
;  APPLICANT:  Yu, Dong
;  APPLICANT:  Agrawal, Sudhir
;  TITLE OF INVENTION: Modulation of Immunostimulatory Activity of Immunostimulatory
;  TITLE OF INVENTION:  Modified oligodeoxynucleotide phosphorothioate Analogs by
;  TITLE OF INVENTION:  Positional Chemical Changes
;  FILE REFERENCE: HYZ-479CP (47508.577)
;  CURRENT APPLICATION NUMBER: US/09/965,116A
;  CURRENT FILING DATE:  2002-03-08
;  PRIOR APPLICATION NUMBER: US 09/712,898
;  PRIOR FILING DATE: 2000-11-15
;  PRIOR APPLICATION NUMBER: US 60/235,452
;  PRIOR FILING DATE: 2000-09-26
;  PRIOR APPLICATION NUMBER: US 60/235,453
;  PRIOR FILING DATE: 2000-09-26
;  NUMBER OF SEQ ID NOS: 112
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 7
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: synthesis of end-blocked CpG-PS modified oligodeoxynucleotide
;   OTHER INFORMATION: phosphorothioate
US-09-965-116A-7

  Query Match              2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db          1 ATGGCGCACGCTGGGAGA 18


RESULT 45
US-09-965-116A-77/c
; Sequence 77, Application US/09965116A
; Patent No. US20020137714A1
; GENERAL INFORMATION:
;  APPLICANT: Kandimalla, Ekambar R.
;  APPLICANT:  Zhao, Qiuyan
;  APPLICANT:  Yu, Dong
;  APPLICANT:  Agrawal, Sudhir
;  TITLE OF INVENTION: Modulation of Immunostimulatory Activity of Immunostimulatory
;  TITLE OF INVENTION:  Modified oligodeoxynucleotide phosphorothioate Analogs by
;  TITLE OF INVENTION:  Positional Chemical Changes
;  FILE REFERENCE: HYZ-479CP (47508.577)
;  CURRENT APPLICATION NUMBER: US/09/965,116A
;  CURRENT FILING DATE:  2002-03-08
;  PRIOR APPLICATION NUMBER: US 09/712,898
;  PRIOR FILING DATE: 2000-11-15
;  PRIOR APPLICATION NUMBER: US 60/235,452
;  PRIOR FILING DATE: 2000-09-26
;  PRIOR APPLICATION NUMBER: US 60/235,453
;  PRIOR FILING DATE: 2000-09-26
;  NUMBER OF SEQ ID NOS: 112
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 77
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: modified linkage of oligodeoxynucleotide phosphorothioate
US-09-965-116A-77

  Query Match              2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 46
US-09-965-116A-98/c
; Sequence 98, Application US/09965116A
; Patent No. US20020137714A1
; GENERAL INFORMATION:
;  APPLICANT: Kandimalla, Ekambar R.
;  APPLICANT:  Zhao, Qiuyan
;  APPLICANT:  Yu, Dong
;  APPLICANT:  Agrawal, Sudhir
;  TITLE OF INVENTION: Modulation of Immunostimulatory Activity of Immunostimulatory
;  TITLE OF INVENTION:  Modified oligodeoxynucleotide phosphorothioate Analogs by
;  TITLE OF INVENTION:  Positional Chemical Changes
;  FILE REFERENCE: HYZ-479CP (47508.577)
;  CURRENT APPLICATION NUMBER: US/09/965,116A
;  CURRENT FILING DATE:  2002-03-08
;  PRIOR APPLICATION NUMBER: US 09/712,898
;  PRIOR FILING DATE: 2000-11-15
;  PRIOR APPLICATION NUMBER: US 60/235,452
;  PRIOR FILING DATE: 2000-09-26
;  PRIOR APPLICATION NUMBER: US 60/235,453
;  PRIOR FILING DATE: 2000-09-26
;  NUMBER OF SEQ ID NOS: 112
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 98
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
US-09-965-116A-98

  Query Match              2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 47
US-09-965-116A-99/c
; Sequence 99, Application US/09965116A
; Patent No. US20020137714A1
; GENERAL INFORMATION:
```

; APPLICANT: Kandimalla, Ekambar R.
; APPLICANT: Zhao, Qiuyan
; APPLICANT: Yu, Dong
; APPLICANT: Agrawal, Sudhir
; TITLE OF INVENTION: Modulation of Immunostimulatory Activity of Immunostimulatory
; TITLE OF INVENTION: Modified oligodeoxynucleotide phosphorothioate Analogs by
; TITLE OF INVENTION: Positional Chemical Changes
; FILE REFERENCE: HYZ-479CP (47508.577)
; CURRENT APPLICATION NUMBER: US/09/965,116A
; CURRENT FILING DATE: 2002-03-08
; PRIOR APPLICATION NUMBER: US 09/712,898
; PRIOR FILING DATE: 2000-11-15
; PRIOR APPLICATION NUMBER: US 60/235,452
; PRIOR FILING DATE: 2000-09-26
; PRIOR APPLICATION NUMBER: US 60/235,453
; PRIOR FILING DATE: 2000-09-26
; NUMBER OF SEQ ID NOS: 112
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 99
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: modified oligodeoxynucleotide phosphorothioate
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: 10,14
; OTHER INFORMATION: g at positions 10 and 14 = 7-deazaguanine
US-09-965-116A-99

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 48
US-09-800-266A-51/c
; Sequence 51, Application US/09800266A
; Patent No. US20020156033A1
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; APPLICANT: Petersen, Deanna M.
; TITLE OF INVENTION: Immunostimulatory Nucleic Acids and
; TITLE OF INVENTION: Cancer Medicament Combination Therapy for the Treatment of
; TITLE OF INVENTION: Cancer
; FILE REFERENCE: C1037/7017(HCL/MAT)
; CURRENT APPLICATION NUMBER: US/09/800,266A
; CURRENT FILING DATE: 2001-03-05
; PRIOR APPLICATION NUMBER: US 60/187,214
; PRIOR FILING DATE: 2000-03-03
; NUMBER OF SEQ ID NOS: 146
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 51
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-800-266A-51

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 49
US-09-895-007A-51/c
; Sequence 51, Application US/09895007A
; Patent No. US20020165178A1
; GENERAL INFORMATION:
; APPLICANT: Schetter, Christian
; APPLICANT: Bratzler, Robert L.
; APPLICANT: Petersen, Deanna M.
; TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACIDS FOR THE
; TITLE OF INVENTION: TREATMENT OF ANEMIA, THROMBOCYTOPENIA, AND NEUTROPENIA
; FILE REFERENCE: C1041/7014 (AWS)
; CURRENT APPLICATION NUMBER: US/09/895,007A
; CURRENT FILING DATE: 2001-06-28
; PRIOR APPLICATION NUMBER: US 60/214,368
; PRIOR FILING DATE: 2000-06-28
; NUMBER OF SEQ ID NOS: 133
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 51
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide
US-09-895-007A-51

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 50
US-09-835-371-21/c
; Sequence 21, Application US/09835371
; Publication No. US20020187473A1
; GENERAL INFORMATION:
; APPLICANT: UHLMANN, Eugen
; APPLICANT: BREIPOHL, Gerhard
; APPLICANT: WILL, David W
; TITLE OF INVENTION: POLYAMIDE NUCLEIC ACID DERIVATIVES, AND AGENTS AND
; TITLE OF INVENTION: PROCESSES FOR PREPARING THEM
; FILE REFERENCE: 02481.1743 SEQUENCE LISTING
; CURRENT APPLICATION NUMBER: US/09/835,371
; CURRENT FILING DATE: 2001-04-17
; NUMBER OF SEQ ID NOS: 53
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 21
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: base sequence
; OTHER INFORMATION: of PNA targeting CMV
US-09-835-371-21

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 51
US-09-920-313-51/c
; Sequence 51, Application US/09920313
; Publication No. US20020198165A1
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.

; APPLICANT: Petersen, Deanna M.
; TITLE OF INVENTION: Nucleic Acids for the Prevention and
; TITLE OF INVENTION: Treatment of Gastric Ulcers
; FILE REFERENCE: C1037/7019 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/09/920,313
; CURRENT FILING DATE: 2001-08-01
; PRIOR APPLICATION NUMBER: US 60/222,248
; PRIOR FILING DATE: 2001-08-08
; NUMBER OF SEQ ID NOS: 148
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 51
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-920-313-51

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 52
US-09-835-370-21/c
; Sequence 21, Application US/09835370
; Publication No. US20030022172A1
; GENERAL INFORMATION:
; APPLICANT: UHLMANN, EUGEN
; APPLICANT: BREIPOHL, GERHARD
; APPLICANT: WILL, DAVID W
; TITLE OF INVENTION: POLYAMIDE NUCLEIC ACID DERIVATIVES AND AGENTS AND
; TITLE OF INVENTION: PROCESSES FOR PREPARING THEM
; FILE REFERENCE: 02481.1742 SEQUENCE LISTING
; CURRENT APPLICATION NUMBER: US/09/835,370
; CURRENT FILING DATE: 2001-04-17
; NUMBER OF SEQ ID NOS: 64
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 21
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: nucleotide
; OTHER INFORMATION: base sequence of PNA derivatives that bind to
; OTHER INFORMATION: viral and cellular targets
US-09-835-370-21

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 53
US-09-888-326-755/c
; Sequence 755, Application US/09888326
; Publication No. US20030026801A1
; GENERAL INFORMATION:
; APPLICANT: Weiner, George
; APPLICANT: Hartmann, Gunther
; TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
; TITLE OF INVENTION: Cell Lysis and Treating Cancer
; FILE REFERENCE: C1039/7052 (AWS)
; CURRENT APPLICATION NUMBER: US/09/888,326
; CURRENT FILING DATE: 2001-06-22
; PRIOR APPLICATION NUMBER: US 60/213,346
; PRIOR FILING DATE: 2000-06-22
; NUMBER OF SEQ ID NOS: 848
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 755
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide
; NAME/KEY: misc_feature
; LOCATION: (0)...(0)
; OTHER INFORMATION: phosphorothioate backbone
US-09-888-326-755

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 54
US-09-888-326-756/c
; Sequence 756, Application US/09888326
; Publication No. US20030026801A1
; GENERAL INFORMATION:
; APPLICANT: Weiner, George
; APPLICANT: Hartmann, Gunther
; TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
; TITLE OF INVENTION: Cell Lysis and Treating Cancer
; FILE REFERENCE: C1039/7052 (AWS)
; CURRENT APPLICATION NUMBER: US/09/888,326
; CURRENT FILING DATE: 2001-06-22
; PRIOR APPLICATION NUMBER: US 60/213,346
; PRIOR FILING DATE: 2000-06-22
; NUMBER OF SEQ ID NOS: 848
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 756
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide
; NAME/KEY: misc_feature
; LOCATION: (0)...(0)
; OTHER INFORMATION: phosphodiester backbone
US-09-888-326-756

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 55
US-09-931-732-20/c
; Sequence 20, Application US/09931732
; Publication No. US20030045488A1
; GENERAL INFORMATION:
; APPLICANT: Brown, Bob D.
; APPLICANT: Riley, Timothy A.
; TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES COMPRISING
; TITLE OF INVENTION: UNIVERSAL AND/OR DEGENERATE BASES
; FILE REFERENCE: OASBIO.001C1
; CURRENT APPLICATION NUMBER: US/09/931,732
; CURRENT FILING DATE: 2001-08-16
; PRIOR APPLICATION NUMBER: PCT/US00/09293

; PRIOR FILING DATE: 2000-04-07
; PRIOR APPLICATION NUMBER: US 60/128,377
; PRIOR FILING DATE: 1999-04-08
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 20
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide primers
US-09-931-732-20

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 56
US-09-818-918-55/c
; Sequence 55, Application US/09818918
; Publication No. US20030050261A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Kline, Joel N.
; APPLICANT: Klinman, Dennis
; APPLICANT: Steinberg, Alfred D.
; TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
; FILE REFERENCE: C1039/7048 (AWS)
; CURRENT APPLICATION NUMBER: US/09/818,918
; CURRENT FILING DATE: 2001-03-27
; PRIOR APPLICATION NUMBER: US 08/276,358
; PRIOR FILING DATE: 1994-07-15
; PRIOR APPLICATION NUMBER: US 08/386,063
; PRIOR FILING DATE: 1995-02-07
; PRIOR APPLICATION NUMBER: US 08/738,652
; PRIOR FILING DATE: 1996-10-30
; NUMBER OF SEQ ID NOS: 56
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 55
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide
US-09-818-918-55

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 57
US-09-776-479-1/c
; Sequence 1, Application US/09776479
; Publication No. US20030087848A1
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; APPLICANT: Petersen, Deanna M.
; APPLICANT: Fouron, Yves
; TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
; TITLE OF INVENTION: Treatment of Asthma and Allergy
; FILE REFERENCE: C1037/7013 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/09/776,479
; CURRENT FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: US 60/179,991
; PRIOR FILING DATE: 2000-02-03
; NUMBER OF SEQ ID NOS: 1093
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-776-479-1

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 58
US-09-776-479-1/c
; Sequence 1, Application US/09776479
; Publication No. US20040067902A9
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; APPLICANT: Petersen, Deanna M.
; APPLICANT: Fouron, Yves
; TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
; TITLE OF INVENTION: Treatment of Asthma and Allergy
; FILE REFERENCE: C1037/7013 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/09/776,479
; CURRENT FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: US 60/179,991
; PRIOR FILING DATE: 2000-02-03
; NUMBER OF SEQ ID NOS: 1093
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-776-479-1

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 59
US-09-776-479-54/c
; Sequence 54, Application US/09776479
; Publication No. US20030087848A1
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; APPLICANT: Petersen, Deanna M.
; APPLICANT: Fouron, Yves
; TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
; TITLE OF INVENTION: Treatment of Asthma and Allergy
; FILE REFERENCE: C1037/7013 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/09/776,479
; CURRENT FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: US 60/179,991
; PRIOR FILING DATE: 2000-02-03
; NUMBER OF SEQ ID NOS: 1093
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 54

```
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-776-479-54

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 60
US-09-776-479-54/c
; Sequence 54, Application US/09776479
; Publication No. US20040067902A9
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  APPLICANT:  Petersen, Deanna M.
;  APPLICANT:  Fouron, Yves
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
;  TITLE OF INVENTION:  Treatment of Asthma and Allergy
;  FILE REFERENCE: C1037/7013 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/09/776,479
;  CURRENT FILING DATE:  2001-02-02
;  PRIOR APPLICATION NUMBER: US 60/179,991
;  PRIOR FILING DATE: 2000-02-03
;  NUMBER OF SEQ ID NOS: 1093
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 54
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-776-479-54

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 61
US-09-776-479-55/c
; Sequence 55, Application US/09776479
; Publication No. US20030087848A1
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  APPLICANT:  Petersen, Deanna M.
;  APPLICANT:  Fouron, Yves
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
;  TITLE OF INVENTION:  Treatment of Asthma and Allergy
;  FILE REFERENCE: C1037/7013 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/09/776,479
;  CURRENT FILING DATE:  2001-02-02
;  PRIOR APPLICATION NUMBER: US 60/179,991
;  PRIOR FILING DATE: 2000-02-03
;  NUMBER OF SEQ ID NOS: 1093
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 55
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-776-479-55

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 62
US-09-776-479-55/c
; Sequence 55, Application US/09776479
; Publication No. US20040067902A9
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  APPLICANT:  Petersen, Deanna M.
;  APPLICANT:  Fouron, Yves
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
;  TITLE OF INVENTION:  Treatment of Asthma and Allergy
;  FILE REFERENCE: C1037/7013 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/09/776,479
;  CURRENT FILING DATE:  2001-02-02
;  PRIOR APPLICATION NUMBER: US 60/179,991
;  PRIOR FILING DATE: 2000-02-03
;  NUMBER OF SEQ ID NOS: 1093
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 55
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-776-479-55

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 63
US-09-776-479-91/c
; Sequence 91, Application US/09776479
; Publication No. US20030087848A1
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  APPLICANT:  Petersen, Deanna M.
;  APPLICANT:  Fouron, Yves
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
;  TITLE OF INVENTION:  Treatment of Asthma and Allergy
;  FILE REFERENCE: C1037/7013 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/09/776,479
;  CURRENT FILING DATE:  2001-02-02
;  PRIOR APPLICATION NUMBER: US 60/179,991
;  PRIOR FILING DATE: 2000-02-03
;  NUMBER OF SEQ ID NOS: 1093
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 91
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-776-479-91

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 64
US-09-776-479-91/c
; Sequence 91, Application US/09776479
; Publication No. US20040067902A9
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  APPLICANT:  Petersen, Deanna M.
;  APPLICANT:  Fouron, Yves
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
;  TITLE OF INVENTION:  Treatment of Asthma and Allergy
;  FILE REFERENCE: C1037/7013 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/09/776,479
;  CURRENT FILING DATE:  2001-02-02
;  PRIOR APPLICATION NUMBER: US 60/179,991
;  PRIOR FILING DATE: 2000-02-03
;  NUMBER OF SEQ ID NOS: 1093
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 91
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-776-479-91

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 65
US-09-954-987B-115/c
; Sequence 115, Application US/09954987B
; Publication No. US20030104523A1
; GENERAL INFORMATION:
;  APPLICANT: Stefan Bauer
;  APPLICANT:  Grayson B. Lipford
;  APPLICANT:  Hermann Wagner
;  TITLE OF INVENTION: PROCESS FOR HIGH THROUGHPUT SCREENING OF
;  TITLE OF INVENTION:  CpG-BASED IMMUNO-AGONIST/ANTAGONIST
;  FILE REFERENCE: C1041/7016 (AWS)
;  CURRENT APPLICATION NUMBER: US/09/954,987B
;  CURRENT FILING DATE:  2001-09-17
;  PRIOR APPLICATION NUMBER: US 60/233,035
;  PRIOR FILING DATE: 2000-09-15
;  PRIOR APPLICATION NUMBER: US 60/263,657
;  PRIOR FILING DATE: 2001-01-23
;  PRIOR APPLICATION NUMBER: US 60/291,726
;  PRIOR FILING DATE: 2001-05-17
;  PRIOR APPLICATION NUMBER: US 60/300,210
;  PRIOR FILING DATE: 2001-06-22
;  NUMBER OF SEQ ID NOS: 230
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 115
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide
US-09-954-987B-115

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 66
US-09-895-480A-14/c
; Sequence 14, Application US/09895480A
; Publication No. US20030129221A1
;  GENERAL INFORMATION:
;      APPLICANT: Inex Pharmaceuticals Inc.
;      TITLE OF INVENTION: High Efficiency Encapsulation of Charged Therapeutic
;                          Agents in
;                          Lipid Vesicles
;      NUMBER OF SEQUENCES: 17
;      CORRESPONDENCE ADDRESS:
;           ADDRESSEE: Oppedahl & Larson LLP
;           STREET: PO Box 5068
;           CITY: Dillon
;           STATE: CO
;           COUNTRY: US
;           ZIP: 80435
;      COMPUTER READABLE FORM:
;           MEDIUM TYPE: Diskette, 3.5 inch, 1.44 Mb
;           COMPUTER: IBM Compatible
;           OPERATING SYSTEM: DOS 5.0
;           SOFTWARE: Word Perfect
;      CURRENT APPLICATION DATA:
;           APPLICATION NUMBER: US/09/895,480A
;           FILING DATE: 29-Jun-2001
;           CLASSIFICATION: <Unknown>
;      PRIOR APPLICATION DATA:
;           APPLICATION NUMBER: <Unknown>
;           FILING DATE: <Unknown>
;      ATTORNEY/AGENT INFORMATION:
;           NAME: <Unknown>
;           REGISTRATION NUMBER: <Unknown>
;           REFERENCE/DOCKET NUMBER: <Unknown>
;      TELECOMMUNICATION INFORMATION:
;           TELEPHONE: <Unknown>
;           TELEFAX: <Unknown>
;           TELEX: <Unknown>
;  INFORMATION FOR SEQ ID NO: 14:
;      SEQUENCE CHARACTERISTICS:
;           LENGTH: 18
;           TYPE: nucleic acid
;           STRANDEDNESS: single
;           TOPOLOGY: linear
;      MOLECULE TYPE: other nucleic acid
;      HYPOTHETICAL: no
;      ANTI-SENSE: yes
;      SEQUENCE DESCRIPTION: SEQ ID NO: 14:
US-09-895-480A-14

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 67
US-09-967-464-4/c
; Sequence 4, Application US/09967464
; Publication No. US20030138453A1
; GENERAL INFORMATION:
;  APPLICANT: O'Hagan, Derek
;  APPLICANT:  Otten, Gillis
;  APPLICANT:  Donnelly, John J.
```

```
;  APPLICANT:  Polo, John M.
;  APPLICANT:  Barnett, Susan
;  APPLICANT:  Singh, Mamohan
;  APPLICANT:  Ulmer, Jeffrey
;  APPLICANT:  Dubensky, Jr., Thomas W.
;  TITLE OF INVENTION: MICROPARTICLES FOR DELIVERY OF HETEROLOGOUS NUCLEIC ACIDS
;  FILE REFERENCE: PP16269.004
;  CURRENT APPLICATION NUMBER: US/09/967,464
;  CURRENT FILING DATE:  2002-04-11
;  PRIOR APPLICATION NUMBER: 60/236,105
;  PRIOR FILING DATE: 2000-09-28
;  PRIOR APPLICATION NUMBER: 60/315,905
;  PRIOR FILING DATE: 2001-08-30
;  NUMBER OF SEQ ID NOS: 68
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Artificial sequence is synthesized
US-09-967-464-4

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 68
US-10-373-381-46/c
; Sequence 46, Application US/10373381
; Publication No. US20040030118A1
; GENERAL INFORMATION:
;  APPLICANT: Wagner, Hermann
;  APPLICANT:  Lipford, Grayson
;  TITLE OF INVENTION: Methods for Regulating Hematopoiesis
;  TITLE OF INVENTION:  Using CpG-Oligonucleotides
;  FILE REFERENCE: C01041.70035.US
;  CURRENT APPLICATION NUMBER: US/10/373,381
;  CURRENT FILING DATE:  2003-02-24
;  PRIOR APPLICATION NUMBER: US 09/241,653
;  PRIOR FILING DATE: 1999-02-02
;  PRIOR APPLICATION NUMBER: US 60/085,516
;  PRIOR FILING DATE: 1998-05-14
;  NUMBER OF SEQ ID NOS: 90
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 46
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide
US-10-373-381-46

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 69
US-10-333-448-2/c
; Sequence 2, Application US/10333448
; Publication No. US20040049150A1
; GENERAL INFORMATION:
;  APPLICANT: Dalton, Colin Clive
;  APPLICANT:  Easeman, Richard Lewis
;  APPLICANT:  Garcon, Nathalie
;  TITLE OF INVENTION: Vaccines
;  FILE REFERENCE: B45229
;  CURRENT APPLICATION NUMBER: US/10/333,448
;  CURRENT FILING DATE:  2003-01-21
;  PRIOR APPLICATION NUMBER: PCT/EP01/08339
;  PRIOR FILING DATE: 2001-07-18
;  PRIOR APPLICATION NUMBER: GB 0017999.4
;  PRIOR FILING DATE: 2000-07-21
;  NUMBER OF SEQ ID NOS: 3
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Cpg oligonucleotide
US-10-333-448-2

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 70
US-09-760-506-2/c
; Sequence 2, Application US/09760506
; Publication No. US20010034330A1
; GENERAL INFORMATION:
;  APPLICANT: Kensil, Charlotte
;  TITLE OF INVENTION: Innate Immunity-Stimulating Compositions of CpG and
;  TITLE OF INVENTION:  Saponin and Methods Thereof
;  FILE REFERENCE: 8449-153-999
;  CURRENT APPLICATION NUMBER: US/09/760,506
;  CURRENT FILING DATE:  2002-01-12
;  PRIOR APPLICATION NUMBER: 60/200,853
;  PRIOR FILING DATE: 2000-05-01
;  PRIOR APPLICATION NUMBER: 60/175,840
;  PRIOR FILING DATE: 2000-01-13
;  PRIOR APPLICATION NUMBER: 60/128,608
;  PRIOR FILING DATE: 1999-04-08
;  PRIOR APPLICATION NUMBER: 60/095,913
;  PRIOR FILING DATE: 1998-08-10
;  NUMBER OF SEQ ID NOS: 6
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: Motif
US-09-760-506-2

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 71
US-10-314-578-1/c
; Sequence 1, Application US/10314578
; Publication No. US20030212026A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
```

```
;  APPLICANT:  Schetter, Christian
;  APPLICANT:  Vollmer, Jorg
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids
;  FILE REFERENCE: C1039/7035 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/10/314,578
;  CURRENT FILING DATE:  2002-12-09
;  PRIOR APPLICATION NUMBER: US 60/156,113
;  PRIOR FILING DATE: 1999-09-25
;  PRIOR APPLICATION NUMBER: US 60/156,135
;  PRIOR FILING DATE: 1999-09-27
;  PRIOR APPLICATION NUMBER: US 60/227,436
;  PRIOR FILING DATE: 2000-08-23
;  NUMBER OF SEQ ID NOS: 1145
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-10-314-578-1

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 72
US-10-314-578-54/c
; Sequence 54, Application US/10314578
; Publication No. US20030212026A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Schetter, Christian
;  APPLICANT:  Vollmer, Jorg
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids
;  FILE REFERENCE: C1039/7035 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/10/314,578
;  CURRENT FILING DATE:  2002-12-09
;  PRIOR APPLICATION NUMBER: US 60/156,113
;  PRIOR FILING DATE: 1999-09-25
;  PRIOR APPLICATION NUMBER: US 60/156,135
;  PRIOR FILING DATE: 1999-09-27
;  PRIOR APPLICATION NUMBER: US 60/227,436
;  PRIOR FILING DATE: 2000-08-23
;  NUMBER OF SEQ ID NOS: 1145
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 54
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-10-314-578-54

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 73
US-10-314-578-55/c
; Sequence 55, Application US/10314578
; Publication No. US20030212026A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Schetter, Christian
;  APPLICANT:  Vollmer, Jorg
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids
;  FILE REFERENCE: C1039/7035 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/10/314,578
;  CURRENT FILING DATE:  2002-12-09
;  PRIOR APPLICATION NUMBER: US 60/156,113
;  PRIOR FILING DATE: 1999-09-25
;  PRIOR APPLICATION NUMBER: US 60/156,135
;  PRIOR FILING DATE: 1999-09-27
;  PRIOR APPLICATION NUMBER: US 60/227,436
;  PRIOR FILING DATE: 2000-08-23
;  NUMBER OF SEQ ID NOS: 1145
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 55
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-10-314-578-55

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 74
US-10-314-578-91/c
; Sequence 91, Application US/10314578
; Publication No. US20030212026A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Schetter, Christian
;  APPLICANT:  Vollmer, Jorg
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids
;  FILE REFERENCE: C1039/7035 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/10/314,578
;  CURRENT FILING DATE:  2002-12-09
;  PRIOR APPLICATION NUMBER: US 60/156,113
;  PRIOR FILING DATE: 1999-09-25
;  PRIOR APPLICATION NUMBER: US 60/156,135
;  PRIOR FILING DATE: 1999-09-27
;  PRIOR APPLICATION NUMBER: US 60/227,436
;  PRIOR FILING DATE: 2000-08-23
;  NUMBER OF SEQ ID NOS: 1145
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 91
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-10-314-578-91

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 75
US-10-434-696-51/c
; Sequence 51, Application US/10434696
; Publication No. US20030224010A1
```

```
; GENERAL INFORMATION:
;  APPLICANT: Davis, Heather L.
;  APPLICANT:  Schorr, Joachim
;  APPLICANT:  Krieg, Arthur M.
;  TITLE OF INVENTION: Use of Nucleic Acids Containing
;  TITLE OF INVENTION:  Unmethylated CpG Dinucleotide as an Adjuvant
;  FILE REFERENCE: C1039/7058/HCL
;  CURRENT APPLICATION NUMBER: US/10/434,696
;  CURRENT FILING DATE:  2003-05-09
;  PRIOR APPLICATION NUMBER: US 09/325,193
;  PRIOR FILING DATE: 1999-06-03
;  PRIOR APPLICATION NUMBER: US 09/154,614
;  PRIOR FILING DATE: 1998-09-16
;  PRIOR APPLICATION NUMBER: PCT/US98/04703
;  PRIOR FILING DATE: 1998-03-10
;  PRIOR APPLICATION NUMBER: US 60/040,376
;  PRIOR FILING DATE: 1997-03-10
;  NUMBER OF SEQ ID NOS: 98
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 51
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-434-696-51

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 76
US-10-023-909A-51/c
; Sequence 51, Application US/10023909A
; Publication No. US20020164341A1
; GENERAL INFORMATION:
;  APPLICANT: Davis, Heather L.
;  APPLICANT:  Schorr, Joachim
;  APPLICANT:  Krieg, Arthur M.
;  TITLE OF INVENTION: Use of Nucleic Acids Containing
;  TITLE OF INVENTION:  Unmethylated CpG Dinucleotide as an Adjuvant
;  FILE REFERENCE: C1039/7058/HCL
;  CURRENT APPLICATION NUMBER: US/10/023,909A
;  CURRENT FILING DATE:  2001-12-18
;  PRIOR APPLICATION NUMBER: US 09/325,193
;  PRIOR FILING DATE: 1999-06-03
;  PRIOR APPLICATION NUMBER: US 09/154,614
;  PRIOR FILING DATE: 1998-09-16
;  PRIOR APPLICATION NUMBER: PCT/US98/04703
;  PRIOR FILING DATE: 1998-03-10
;  PRIOR APPLICATION NUMBER: US 60/040,376
;  PRIOR FILING DATE: 1997-03-10
;  NUMBER OF SEQ ID NOS: 98
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 51
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-023-909A-51

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 77
US-10-112-653-1/c
; Sequence 1, Application US/10112653
; Publication No. US20030050268A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Berg, Daniel J.
;  TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID FOR
;  TITLE OF INVENTION:  TREATMENT OF NON-ALLERGIC INFLAMMATORY DISEASES
;  FILE REFERENCE: C01039/70060(AWS)
;  CURRENT APPLICATION NUMBER: US/10/112,653
;  CURRENT FILING DATE:  2002-03-29
;  PRIOR APPLICATION NUMBER: US 60/279,642
;  PRIOR FILING DATE: 2001-03-29
;  NUMBER OF SEQ ID NOS: 1040
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-112-653-1

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 78
US-10-112-653-85/c
; Sequence 85, Application US/10112653
; Publication No. US20030050268A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Berg, Daniel J.
;  TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID FOR
;  TITLE OF INVENTION:  TREATMENT OF NON-ALLERGIC INFLAMMATORY DISEASES
;  FILE REFERENCE: C01039/70060(AWS)
;  CURRENT APPLICATION NUMBER: US/10/112,653
;  CURRENT FILING DATE:  2002-03-29
;  PRIOR APPLICATION NUMBER: US 60/279,642
;  PRIOR FILING DATE: 2001-03-29
;  NUMBER OF SEQ ID NOS: 1040
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 85
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-112-653-85

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 79
US-10-017-995-1/c
; Sequence 1, Application US/10017995
; Publication No. US20030055014A1
```

```
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids
;  FILE REFERENCE: C1037/7025 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/10/017,995
;  CURRENT FILING DATE:  2001-12-18
;  PRIOR APPLICATION NUMBER: US 60/255,534
;  PRIOR FILING DATE: 2000-12-14
;  NUMBER OF SEQ ID NOS: 1093
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-10-017-995-1

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 80
US-10-017-995-54/c
; Sequence 54, Application US/10017995
; Publication No. US20030055014A1
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids
;  FILE REFERENCE: C1037/7025 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/10/017,995
;  CURRENT FILING DATE:  2001-12-18
;  PRIOR APPLICATION NUMBER: US 60/255,534
;  PRIOR FILING DATE: 2000-12-14
;  NUMBER OF SEQ ID NOS: 1093
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 54
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-10-017-995-54

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 81
US-10-017-995-55/c
; Sequence 55, Application US/10017995
; Publication No. US20030055014A1
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids
;  FILE REFERENCE: C1037/7025 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/10/017,995
;  CURRENT FILING DATE:  2001-12-18
;  PRIOR APPLICATION NUMBER: US 60/255,534
;  PRIOR FILING DATE: 2000-12-14
;  NUMBER OF SEQ ID NOS: 1093
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 55
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-10-017-995-55

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 82
US-10-017-995-91/c
; Sequence 91, Application US/10017995
; Publication No. US20030055014A1
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids
;  FILE REFERENCE: C1037/7025 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/10/017,995
;  CURRENT FILING DATE:  2001-12-18
;  PRIOR APPLICATION NUMBER: US 60/255,534
;  PRIOR FILING DATE: 2000-12-14
;  NUMBER OF SEQ ID NOS: 1093
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 91
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-10-017-995-91

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 83
US-10-002-884A-6/c
; Sequence 6, Application US/10002884A
; Publication No. US2003008781OA1
; GENERAL INFORMATION:
;  APPLICANT: Stein, Cy A
;  APPLICANT:  Benimetskaya, Lyuba
;  APPLICANT:  Guzzo-Pernell, Nancy
;  TITLE OF INVENTION: PEPTIDES THAT COMPLEX WITH ANTISENSE OLIGONUCLEOTIDES WHICH DOWNRE
;  TITLE OF INVENTION:  PKC-PROTEIN EXPRESSION IN CELLS
;  FILE REFERENCE: 0575/63293
;  CURRENT APPLICATION NUMBER: US/10/002,884A
;  CURRENT FILING DATE:  2001-11-02
;  NUMBER OF SEQ ID NOS: 9
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: ARTIFICIAL SEQUENCE
;   FEATURE:
;   OTHER INFORMATION: ANTISENSE OLIGONUCLEOTIDE
US-10-002-884A-6

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
```

RESULT 84
US-10-300-247-51/c
; Sequence 51, Application US/10300247
; Publication No. US20030091599A1
; GENERAL INFORMATION:
; APPLICANT: Davis, Heather L.
; APPLICANT: Schorr, Joachim
; APPLICANT: Krieg, Arthur M.
; TITLE OF INVENTION: Use of Nucleic Acids Containing
; TITLE OF INVENTION: Unmethylated CpG Dinucleotide as an Adjuvant
; FILE REFERENCE: C1039/7058/HCL
; CURRENT APPLICATION NUMBER: US/10/300,247
; CURRENT FILING DATE: 2002-11-20
; PRIOR APPLICATION NUMBER: US 09/325,193
; PRIOR FILING DATE: 1999-06-03
; PRIOR APPLICATION NUMBER: US 09/154,614
; PRIOR FILING DATE: 1998-09-16
; PRIOR APPLICATION NUMBER: PCT/US98/04703
; PRIOR FILING DATE: 1998-03-10
; PRIOR APPLICATION NUMBER: US 60/040,376
; PRIOR FILING DATE: 1997-03-10
; NUMBER OF SEQ ID NOS: 98
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 51
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Oligonucleotide
US-10-300-247-51

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
```

RESULT 85
US-10-161-229-53/c
; Sequence 53, Application US/10161229
; Publication No. US20030100527A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Hartmann, Gunther
; TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules for
; TITLE OF INVENTION: Activating Dendritic Cells
; FILE REFERENCE: C01039/70061
; CURRENT APPLICATION NUMBER: US/10/161,229
; CURRENT FILING DATE: 2002-06-03
; PRIOR APPLICATION NUMBER: US 09/191,170
; PRIOR FILING DATE: 1998-11-13
; PRIOR APPLICATION NUMBER: US 08/960,774
; PRIOR FILING DATE: 1997-10-30
; PRIOR APPLICATION NUMBER: US 08/738,652
; PRIOR FILING DATE: 1996-10-30
; PRIOR APPLICATION NUMBER: US 08/386,063
; PRIOR FILING DATE: 1995-02-07
; PRIOR APPLICATION NUMBER: US 08/276,358
; PRIOR FILING DATE: 1994-07-15
; NUMBER OF SEQ ID NOS: 99
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 53
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Oligonucleotide
US-10-161-229-53

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
```

RESULT 86
US-10-142-566-45/c
; Sequence 45, Application US/10142566
; Publication No. US20030119016A1
; GENERAL INFORMATION:
; APPLICANT: Riley, Timothy A.
; APPLICANT: Brown, Bob D.
; APPLICANT: Arnold, Lyle J.
; TITLE OF INVENTION: ANTISENSE OLIGONUCLEOTIDES WITH INCREASED RNASE SENSITIVITY
; FILE REFERENCE: OASBIO.003DV1
; CURRENT APPLICATION NUMBER: US/10/142,566
; CURRENT FILING DATE: 2002-08-06
; PRIOR APPLICATION NUMBER: US 09/136,080
; PRIOR FILING DATE: 1998-08-18
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 45
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: synthetic oligonucleotide
US-10-142-566-45

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
```

RESULT 87
US-10-290-545-9/c
; Sequence 9, Application US/10290545
; Publication No. US20030125292A1
; GENERAL INFORMATION:
; APPLICANT: Semple, Sean
; APPLICANT: Klimuk, Sandy
; APPLICANT: Yuan, Zuan-Ning
; TITLE OF INVENTION: Improved Mucosal Vaccines and Methods for Using the Same
; FILE REFERENCE: A-71854/TAL/AXG
; CURRENT APPLICATION NUMBER: US/10/290,545
; CURRENT FILING DATE: 2002-11-07
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 9
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-290-545-9

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
```

```
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 88
US-10-290-545-24/c
; Sequence 24, Application US/10290545
; Publication No. US20030125292A1
; GENERAL INFORMATION:
;  APPLICANT: Semple, Sean
;  APPLICANT:  Klimuk, Sandy
;  APPLICANT:  Yuan, Zuan-Ning
;  TITLE OF INVENTION: Improved Mucosal Vaccines and Methods for Using the Same
;  FILE REFERENCE: A-71854/TAL/AXG
;  CURRENT APPLICATION NUMBER: US/10/290,545
;  CURRENT FILING DATE:  2002-11-07
;  NUMBER OF SEQ ID NOS: 30
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 24
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-290-545-24

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 89
US-10-262-318-6/c
; Sequence 6, Application US/10262318
; Publication No. US20030144198A1
; GENERAL INFORMATION:
;  APPLICANT: Copharos
;  APPLICANT:  Collins, Douglas A.
;  TITLE OF INVENTION: CODMINISTRATION OF TRANSPORT PROTEINS WITH CONJUGATED COBALAMIN T
;  TITLE OF INVENTION:  DELIVER AGENTS
;  FILE REFERENCE: COP1012
;  CURRENT APPLICATION NUMBER: US/10/262,318
;  CURRENT FILING DATE:  2002-09-30
;  NUMBER OF SEQ ID NOS: 14
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   OTHER INFORMATION: oligonucleotide-- G3139 Genta
US-10-262-318-6

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 90
US-10-224-523-40/c
; Sequence 40, Application US/10224523
; Publication No. US20030148976A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur
;  APPLICANT:  Vollmer, Jorg
;  APPLICANT:  Ulhmann, Eugen
;  TITLE OF INVENTION: Combination Motif Immune Stimulatory Oligonucleotides with Improv
;  TITLE OF INVENTION:  Activity
;  FILE REFERENCE: C01039/70063 (HCL/AWS)
;  CURRENT APPLICATION NUMBER: US/10/224,523
;  CURRENT FILING DATE:  2002-08-19
;  PRIOR APPLICATION NUMBER: US 60/313,273
;  PRIOR FILING DATE: 2001-08-17
;  PRIOR APPLICATION NUMBER: US 60/393,952
;  PRIOR FILING DATE: 2002-07-03
;  NUMBER OF SEQ ID NOS: 81
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 40
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-224-523-40

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 91
US-10-379-164-2/c
; Sequence 2, Application US/10379164
; Publication No. US20030161834A1
; GENERAL INFORMATION:
;  APPLICANT: Friede, Martin
;  APPLICANT:  Garcon, Nathalie
;  APPLICANT:  Gerard, Catherine Marie Ghislaine
;  APPLICANT:  Hermand, Philippe
;  TITLE OF INVENTION: Vaccines
;  FILE REFERENCE: B45181-1D1
;  CURRENT APPLICATION NUMBER: US/10/379,164
;  CURRENT FILING DATE:  2003-03-03
;  PRIOR APPLICATION NUMBER: 09/690,921
;  PRIOR FILING DATE: 2000-10-18
;  PRIOR APPLICATION NUMBER: PCT/EP00/02920
;  PRIOR FILING DATE: 2000-04-04
;  PRIOR APPLICATION NUMBER: 09/301,829
;  PRIOR FILING DATE: 1999-04-29
;  PRIOR APPLICATION NUMBER: GB 9908885.8
;  PRIOR FILING DATE: 1999-04-19
;  NUMBER OF SEQ ID NOS: 5
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Homo sapien
US-10-379-164-2

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 92
US-10-187-264A-45/c
; Sequence 45, Application US/10187264A
; Publication No. US20030162734A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Klinman, Dennis
;  APPLICANT:  Steinberg, Alfred D.
;  TITLE OF INVENTION: Methods for Treating and Preventing
```

```
;  TITLE OF INVENTION:  Infectious Disease
;  FILE REFERENCE: C01039.70062.US
;  CURRENT APPLICATION NUMBER: US/10/187,264A
;  CURRENT FILING DATE:  2002-06-28
;  PRIOR APPLICATION NUMBER: US 09/630,319
;  PRIOR FILING DATE: 2000-07-31
;  PRIOR APPLICATION NUMBER: US 08/960,774
;  PRIOR FILING DATE: 1997-10-30
;  PRIOR APPLICATION NUMBER: US 08/738,652
;  PRIOR FILING DATE: 1996-10-30
;  PRIOR APPLICATION NUMBER: US 08/386,063
;  PRIOR FILING DATE: 1995-02-07
;  PRIOR APPLICATION NUMBER: US 08/276,358
;  PRIOR FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 124
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 45
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-187-264A-45

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 93
US-10-265-072-112/c
; Sequence 112, Application US/10265072
; Publication No. US20030166001A1
; GENERAL INFORMATION:
;  APPLICANT: Lipford, Grayson
;  TITLE OF INVENTION: TOLL-LIKE RECEPTOR 3 SIGNALING AGONISTS AND ANTAGONISTS
;  FILE REFERENCE: C01041.70031.US
;  CURRENT APPLICATION NUMBER: US/10/265,072
;  CURRENT FILING DATE:  2002-10-05
;  NUMBER OF SEQ ID NOS: 117
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 112
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide
US-10-265-072-112

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 94
US-10-365-623-15/c
; Sequence 15, Application US/10365623
; Publication No. US20030166512A1
; GENERAL INFORMATION:
;  APPLICANT: Xie, Dong
;  TITLE OF INVENTION: Protein Carrier System for Therapeutic Oligonucleotides
;  FILE REFERENCE: 63024.000001
;  CURRENT APPLICATION NUMBER: US/10/365,623
;  CURRENT FILING DATE:  2003-02-13
;  NUMBER OF SEQ ID NOS: 23
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 15
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Antisense oligonucleotide directed against human bcl-2
US-10-365-623-15

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 95
US-10-142-666-9/c
; Sequence 9, Application US/10142666
; Publication No. US20030171315A1
; GENERAL INFORMATION:
;  APPLICANT: Brown, Bob D.
;  APPLICANT:  Riley, Timothy A.
;  TITLE OF INVENTION: OLIGONUCLEOTIDE PROBES AND PRIMERS
;  TITLE OF INVENTION:  COMPRISING UNIVERSAL BASES FOR THERAPEUTIC PURPOSES
;  FILE REFERENCE: OASBIO.016A
;  CURRENT APPLICATION NUMBER: US/10/142,666
;  CURRENT FILING DATE:  2002-08-29
;  PRIOR APPLICATION NUMBER: 60/306,229
;  PRIOR FILING DATE: 2001-07-18
;  PRIOR APPLICATION NUMBER: 09/136,080
;  PRIOR FILING DATE: 1998-08-18
;  PRIOR APPLICATION NUMBER: 60/060,673
;  PRIOR FILING DATE: 1997-10-02
;  NUMBER OF SEQ ID NOS: 88
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 9
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Artificial Oligonucleotide
US-10-142-666-9

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 96
US-10-053-645A-17/c
; Sequence 17, Application US/10053645A
; Publication No. US20030176376A1
; GENERAL INFORMATION:
;  APPLICANT: Robert E. Klem
;  TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TREATING A
;  TITLE OF INVENTION:  CELL-PROLIFERATIVE DISORDER USING CRE DECOY OLIGOMERS, BCL-2
;  TITLE OF INVENTION:  ANTISENSE OLIGOMERS, AND HYBRID OLIGOMERS THEREOF
;  FILE REFERENCE: 10412-022-999
;  CURRENT APPLICATION NUMBER: US/10/053,645A
;  CURRENT FILING DATE:  2002-01-22
;  PRIOR APPLICATION NUMBER: 60/263,244
;  PRIOR FILING DATE: 2001-01-22
;  NUMBER OF SEQ ID NOS: 43
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 17
;   LENGTH: 18
```

; TYPE: DNA
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Description of artificial sequence: Synthetic Antisense
; OTHER INFORMATION: Oligionucleotide
US-10-053-645A-17

  Query Match 2.9%; Score 18; DB 1; Length 18;
  Best Local Similarity 100.0%; Pred. No. 67;
  Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
    ||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 97
US-10-053-645A-24/c
; Sequence 24, Application US/10053645A
; Publication No. US20030176376A1
; GENERAL INFORMATION:
; APPLICANT: Robert E. Klem
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR TREATING A
; TITLE OF INVENTION: CELL-PROLIFERATIVE DISORDER USING CRE DECOY OLIGOMERS, BCL-2
; TITLE OF INVENTION: ANTISENSE OLIGOMERS, AND HYBRID OLIGOMERS THEREOF
; FILE REFERENCE: 10412-022-999
; CURRENT APPLICATION NUMBER: US/10/053,645A
; CURRENT FILING DATE: 2002-01-22
; PRIOR APPLICATION NUMBER: 60/263,244
; PRIOR FILING DATE: 2001-01-22
; NUMBER OF SEQ ID NOS: 43
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 24
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Description of artificial sequence: Synthetic Antisense
; OTHER INFORMATION: Oligionucleotide
US-10-053-645A-24

  Query Match 2.9%; Score 18; DB 1; Length 18;
  Best Local Similarity 100.0%; Pred. No. 67;
  Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
    ||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 98
US-10-140-013-1/c
; Sequence 1, Application US/10140013
; Publication No. US20030181406A1
; GENERAL INFORMATION:
; APPLICANT: Christian Schetter
; APPLICANT: Jorg Vollmer
; TITLE OF INVENTION: CpG-LIKE NUCLEIC ACIDS AND METHODS OF
; TITLE OF INVENTION: USE THEREOF
; FILE REFERENCE: C01041/70019 (AWS)
; CURRENT APPLICATION NUMBER: US/10/140,013
; CURRENT FILING DATE: 2002-05-06
; PRIOR APPLICATION NUMBER: US 60/254,341
; PRIOR FILING DATE: 2000-12-08
; PRIOR APPLICATION NUMBER: PCT/US01/48281
; PRIOR FILING DATE: 2001-12-10
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 1
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide
US-10-140-013-1

  Query Match 2.9%; Score 18; DB 1; Length 18;
  Best Local Similarity 100.0%; Pred. No. 67;
  Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
    ||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 99
US-10-140-013-2/c
; Sequence 2, Application US/10140013
; Publication No. US20030181406A1
; GENERAL INFORMATION:
; APPLICANT: Christian Schetter
; APPLICANT: Jorg Vollmer
; TITLE OF INVENTION: CpG-LIKE NUCLEIC ACIDS AND METHODS OF
; TITLE OF INVENTION: USE THEREOF
; FILE REFERENCE: C01041/70019 (AWS)
; CURRENT APPLICATION NUMBER: US/10/140,013
; CURRENT FILING DATE: 2002-05-06
; PRIOR APPLICATION NUMBER: US 60/254,341
; PRIOR FILING DATE: 2000-12-08
; PRIOR APPLICATION NUMBER: PCT/US01/48281
; PRIOR FILING DATE: 2001-12-10
; NUMBER OF SEQ ID NOS: 36
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 2
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: (2)...(2)
; OTHER INFORMATION: m5c
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: (4)...(6)
; OTHER INFORMATION: m5c
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: (9)...(9)
; OTHER INFORMATION: m5c
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: (13)...(13)
; OTHER INFORMATION: m5c
; FEATURE:
; NAME/KEY: modified_base
; LOCATION: (15)...(16)
; OTHER INFORMATION: m5c
US-10-140-013-2

  Query Match 2.9%; Score 18; DB 1; Length 18;
  Best Local Similarity 100.0%; Pred. No. 67;
  Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
    ||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 100
US-10-306-522-45/c
; Sequence 45, Application US/10306522
; Publication No. US20030191079A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.

```
;  APPLICANT:  Klinman, Dennis
;  APPLICANT:  Steinberg, Alfred D.
;  TITLE OF INVENTION: Methods for Treating and Preventing
;  TITLE OF INVENTION:  Infectious Disease
;  FILE REFERENCE: C01039.70062.US
;  CURRENT APPLICATION NUMBER: US/10/306,522
;  CURRENT FILING DATE:  2002-11-27
;  PRIOR APPLICATION NUMBER: US 09/630,319
;  PRIOR FILING DATE: 2000-07-31
;  PRIOR APPLICATION NUMBER: US 08/960,774
;  PRIOR FILING DATE: 1997-10-30
;  PRIOR APPLICATION NUMBER: US 08/738,652
;  PRIOR FILING DATE: 1996-10-30
;  PRIOR APPLICATION NUMBER: US 08/386,063
;  PRIOR FILING DATE: 1995-02-07
;  PRIOR APPLICATION NUMBER: US 08/276,358
;  PRIOR FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 124
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 45
;    LENGTH: 18
;    TYPE: DNA
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: Synthetic Oligonucleotide
US-10-306-522-45

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 101
US-10-233-902-6/c
; Sequence 6, Application US/10233902
; Publication No. US20030194391A1
; GENERAL INFORMATION:
;  APPLICANT: Claire Ashman
;  APPLICANT:  James Scott Crowe
;  APPLICANT:  Jonathan Henry Ellis
;  APPLICANT:  Alan Peter Lewis
;  TITLE OF INVENTION: VACCINE
;  FILE REFERENCE: PG4355US
;  CURRENT APPLICATION NUMBER: US/10/233,902
;  CURRENT FILING DATE:  2002-09-03
;  NUMBER OF SEQ ID NOS: 25
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 6
;    LENGTH: 18
;    TYPE: DNA
;    ORGANISM: unknown
;    FEATURE:
;    OTHER INFORMATION: synthetic immunostimulatory oligonucleotide
US-10-233-902-6

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 102
US-10-437-263-9/c
; Sequence 9, Application US/10437263
; Publication No. US20040009943A1
; GENERAL INFORMATION:
;  APPLICANT: Semple, Sean
;  APPLICANT:  Tam, Ying K.
;  APPLICANT:  Chikh, Ghania
;  APPLICANT:  Hope, Michael J.
;  TITLE OF INVENTION: PATHOGEN VACCINES AND METHODS FOR USING THE SAME
;  FILE REFERENCE: A-72216/TAL
;  CURRENT APPLICATION NUMBER: US/10/437,263
;  CURRENT FILING DATE:  2003-05-12
;  PRIOR APPLICATION NUMBER: 60/379,343
;  PRIOR FILING DATE: 2002-05-10
;  PRIOR APPLICATION NUMBER: 60/460,646
;  PRIOR FILING DATE: 2003-04-04
;  PRIOR APPLICATION NUMBER: 60/454,298
;  PRIOR FILING DATE: 2003-03-12
;  NUMBER OF SEQ ID NOS: 34
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 9
;    LENGTH: 18
;    TYPE: DNA
;    ORGANISM: Homo sapiens
US-10-437-263-9

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 103
US-10-437-263-24/c
; Sequence 24, Application US/10437263
; Publication No. US20040009943A1
; GENERAL INFORMATION:
;  APPLICANT: Semple, Sean
;  APPLICANT:  Tam, Ying K.
;  APPLICANT:  Chikh, Ghania
;  APPLICANT:  Hope, Michael J.
;  TITLE OF INVENTION: PATHOGEN VACCINES AND METHODS FOR USING THE SAME
;  FILE REFERENCE: A-72216/TAL
;  CURRENT APPLICATION NUMBER: US/10/437,263
;  CURRENT FILING DATE:  2003-05-12
;  PRIOR APPLICATION NUMBER: 60/379,343
;  PRIOR FILING DATE: 2002-05-10
;  PRIOR APPLICATION NUMBER: 60/460,646
;  PRIOR FILING DATE: 2003-04-04
;  PRIOR APPLICATION NUMBER: 60/454,298
;  PRIOR FILING DATE: 2003-03-12
;  NUMBER OF SEQ ID NOS: 34
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 24
;    LENGTH: 18
;    TYPE: DNA
;    ORGANISM: Homo sapiens
US-10-437-263-24

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 104
US-10-437-275-9/c
; Sequence 9, Application US/10437275
; Publication No. US20040009944A1
; GENERAL INFORMATION:
;  APPLICANT: Tam, Ying K.
```

; APPLICANT: Semple, Sean
; APPLICANT: Klimuk, Sandra
; APPLICANT: Chikh, Ghania
; TITLE OF INVENTION: METHYLATED IMMUNOSTIMULATORY OLIGONUCLEOTIDES AND METHODS OF
; TITLE OF INVENTION: USING THE SAME
; FILE REFERENCE: A-72158/TAL
; CURRENT APPLICATION NUMBER: US/10/437,275
; CURRENT FILING DATE: 2003-05-12
; PRIOR APPLICATION NUMBER: 60/379,343
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/460,646
; PRIOR FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: 10/290,545
; PRIOR FILING DATE: 2002-11-07
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 9
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-437-275-9

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 105
US-10-437-275-24/c
; Sequence 24, Application US/10437275
; Publication No. US20040009944A1
; GENERAL INFORMATION:
; APPLICANT: Tam, Ying K.
; APPLICANT: Semple, Sean
; APPLICANT: Klimuk, Sandra
; APPLICANT: Chikh, Ghania
; TITLE OF INVENTION: METHYLATED IMMUNOSTIMULATORY OLIGONUCLEOTIDES AND METHODS OF
; TITLE OF INVENTION: USING THE SAME
; FILE REFERENCE: A-72158/TAL
; CURRENT APPLICATION NUMBER: US/10/437,275
; CURRENT FILING DATE: 2003-05-12
; PRIOR APPLICATION NUMBER: 60/379,343
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/460,646
; PRIOR FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: 10/290,545
; PRIOR FILING DATE: 2002-11-07
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 24
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-437-275-24

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 106
US-10-447-136-218/c
; Sequence 218, Application US/10447136
; Publication No. US20040009948A1
; GENERAL INFORMATION:
; APPLICANT: WRIGHT, Jim A.
; APPLICANT: YOUNG, Aiping H.
; TITLE OF INVENTION: Antitumor Antisense Sequences Directed Against R1 and
; TITLE OF INVENTION: R2 Components of Ribonucleotide Reductase
; FILE REFERENCE: 032396-023
; CURRENT APPLICATION NUMBER: US/10/447,136
; CURRENT FILING DATE: 2003-05-29
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US/09/249,247
; PRIOR FILING DATE: EARLIER FILING DATE: 1999-02-11
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/023,040
; PRIOR FILING DATE: EARLIER FILING DATE: 1996-08-02
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 60/039,959
; PRIOR FILING DATE: EARLIER FILING DATE: 1997-03-07
; PRIOR APPLICATION NUMBER: EARLIER APPLICATION NUMBER: US 08/904,901
; PRIOR FILING DATE: EARLIER FILING DATE: 1997-08-01
; NUMBER OF SEQ ID NOS: 220
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 218
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Human
US-10-447-136-218

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 107
US-10-437-258-9/c
; Sequence 9, Application US/10437258
; Publication No. US20040013649A1
; GENERAL INFORMATION:
; APPLICANT: Tam, Ying K.
; APPLICANT: Semple, Sean
; APPLICANT: Klimuk, Sandra
; APPLICANT: Chikh, Ghania
; TITLE OF INVENTION: CANCER VACCINES AND METHODS OF USING THE SAME
; FILE REFERENCE: A-72252/TAL
; CURRENT APPLICATION NUMBER: US/10/437,258
; CURRENT FILING DATE: 2003-05-12
; PRIOR APPLICATION NUMBER: 60/379,343
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/460,646
; PRIOR FILING DATE: 2003-04-04
; PRIOR APPLICATION NUMBER: 60/454,298
; PRIOR FILING DATE: 2003-03-12
; NUMBER OF SEQ ID NOS: 34
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 9
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-437-258-9

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 108
US-10-437-258-24/c
; Sequence 24, Application US/10437258
; Publication No. US20040013649A1
; GENERAL INFORMATION:

```
;  APPLICANT: Tam, Ying K.
;  APPLICANT:  Semple, Sean
;  APPLICANT:  Klimuk, Sandra
;  APPLICANT:  Chikh, Ghania
;  TITLE OF INVENTION: CANCER VACCINES AND METHODS OF USING THE SAME
;  FILE REFERENCE: A-72252/TAL
;  CURRENT APPLICATION NUMBER: US/10/437,258
;  CURRENT FILING DATE:  2003-05-12
;  PRIOR APPLICATION NUMBER: 60/379,343
;  PRIOR FILING DATE: 2002-05-10
;  PRIOR APPLICATION NUMBER: 60/460,646
;  PRIOR FILING DATE: 2003-04-04
;  PRIOR APPLICATION NUMBER: 60/454,298
;  PRIOR FILING DATE: 2003-03-12
;  NUMBER OF SEQ ID NOS: 34
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 24
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-437-258-24

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 109
US-10-719-493-45/c
; Sequence 45, Application US/10719493
; Publication No. US20040087538A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  TITLE OF INVENTION: Methods of Treating Cancer Using
;  TITLE OF INVENTION:  Immunostimulatory Oligonucleotides
;  FILE REFERENCE: C1039/7021/HCL
;  CURRENT APPLICATION NUMBER: US/10/719,493
;  CURRENT FILING DATE:  2003-11-21
;  PRIOR APPLICATION NUMBER: US 08/960,774
;  PRIOR FILING DATE: 1997-10-30
;  PRIOR APPLICATION NUMBER: US 08/738,652
;  PRIOR FILING DATE: 1996-10-30
;  PRIOR APPLICATION NUMBER: US 08/386,063
;  PRIOR FILING DATE: 1995-02-07
;  PRIOR APPLICATION NUMBER: US 08/276,358
;  PRIOR FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 123
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 45
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-719-493-45

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 110
US-10-627-331-45/c
; Sequence 45, Application US/10627331
; Publication No. US20040106568A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Klinman, Dennis
;  APPLICANT:  Steinberg, Alfred D.
;  TITLE OF INVENTION: Methods for Treating and Preventing
;  TITLE OF INVENTION:  Infectious Disease
;  FILE REFERENCE: C01039.70062.US
;  CURRENT APPLICATION NUMBER: US/10/627,331
;  CURRENT FILING DATE:  2003-07-25
;  PRIOR APPLICATION NUMBER: US 09/630,319
;  PRIOR FILING DATE: 2000-07-31
;  PRIOR APPLICATION NUMBER: US 08/960,774
;  PRIOR FILING DATE: 1997-10-30
;  PRIOR APPLICATION NUMBER: US 08/738,652
;  PRIOR FILING DATE: 1996-10-30
;  PRIOR APPLICATION NUMBER: US 08/386,063
;  PRIOR FILING DATE: 1995-02-07
;  PRIOR APPLICATION NUMBER: US 08/276,358
;  PRIOR FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 124
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 45
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-627-331-45

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 111
US-10-666-733-51/c
; Sequence 51, Application US/10666733
; Publication No. US20040131628A1
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  APPLICANT:  Petersen, Deanna M.
;  TITLE OF INVENTION: Nucleic Acids for the Treatment of
;  TITLE OF INVENTION:  Disorders Associated with Microorganisms
;  FILE REFERENCE: C1037.70018US00
;  CURRENT APPLICATION NUMBER: US/10/666,733
;  CURRENT FILING DATE:  2003-09-19
;  PRIOR APPLICATION NUMBER: not yet assigned
;  PRIOR FILING DATE: 2003-09-19
;  PRIOR APPLICATION NUMBER: US 09/801,839
;  PRIOR FILING DATE: 2001-03-08
;  PRIOR APPLICATION NUMBER: US 60/187,834
;  PRIOR FILING DATE: 2000-03-08
;  NUMBER OF SEQ ID NOS: 135
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 51
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-10-666-733-51

  Query Match             2.9%;  Score 18;  DB 1;  Length 18;
  Best Local Similarity   100.0%;  Pred. No. 67;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1
```

RESULT 112
US-10-743-625-55/c
; Sequence 55, Application US/10743625
; Publication No. US20040132685A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Kline, Joel N.
; APPLICANT: Klinman, Dennis
; APPLICANT: Steinberg, Alfred D.
; TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
; FILE REFERENCE: C01039.70075.US
; CURRENT APPLICATION NUMBER: US/10/743,625
; CURRENT FILING DATE: 2003-12-22
; PRIOR APPLICATION NUMBER: US 08/276,358
; PRIOR FILING DATE: 1994-07-15
; PRIOR APPLICATION NUMBER: US 08/386,063
; PRIOR FILING DATE: 1995-02-07
; PRIOR APPLICATION NUMBER: US 08/738,652
; PRIOR FILING DATE: 1996-10-30
; PRIOR APPLICATION NUMBER: US 09/818,918
; PRIOR FILING DATE: 2001-03-27
; NUMBER OF SEQ ID NOS: 56
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 55
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide
US-10-743-625-55

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 113
US-10-714-310-32/c
; Sequence 32, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Zhidong
; APPLICANT: Ruffner, Duane E.
; APPLICANT: Prakash, Ramesh
; APPLICANT: Koehn, Richard
; TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
; FILE REFERENCE: 12475/50102
; CURRENT APPLICATION NUMBER: US/10/714,310
; CURRENT FILING DATE: 2003-11-14
; PRIOR APPLICATION NUMBER: US 60/426,269
; PRIOR FILING DATE: 2002-11-14
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 32
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-714-310-32

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 366 GCCCTTCACCGCGCGGGG 383
||||||||||||||||||
Db 18 GCCCTTCACCGCGCGGGG 1

RESULT 114
US-10-769-282-55/c
; Sequence 55, Application US/10769282
; Publication No. US20040167089A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Kline, Joel N.
; APPLICANT: Klinman, Dennis
; APPLICANT: Steinberg, Alfred D.
; TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules
; FILE REFERENCE: C1039/7048 (AWS)
; CURRENT APPLICATION NUMBER: US/10/769,282
; CURRENT FILING DATE: 2004-01-30
; PRIOR APPLICATION NUMBER: US 08/276,358
; PRIOR FILING DATE: 1994-07-15
; PRIOR APPLICATION NUMBER: US 08/386,063
; PRIOR FILING DATE: 1995-02-07
; PRIOR APPLICATION NUMBER: US 08/738,652
; PRIOR FILING DATE: 1996-10-30
; NUMBER OF SEQ ID NOS: 56
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 55
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide
US-10-769-282-55

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 115
US-10-735-592-60/c
; Sequence 60, Application US/10735592
; Publication No. US20040171571A1
; GENERAL INFORMATION:
; APPLICANT: Art, Krieg
; APPLICANT: Joerg, Vollmer
; TITLE OF INVENTION: 5' CPG Nucleic Acids and Methods of Use
; FILE REFERENCE: C1037.70038US01
; CURRENT APPLICATION NUMBER: US/10/735,592
; CURRENT FILING DATE: 2003-12-11
; NUMBER OF SEQ ID NOS: 69
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 60
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide
US-10-735-592-60

Query Match 2.9%; Score 18; DB 1; Length 18;
Best Local Similarity 100.0%; Pred. No. 67;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 116
US-09-974-974-13
; Sequence 13, Application US/09974974
; Publication No. US20030013095A1

```
; GENERAL INFORMATION:
;  APPLICANT: Kazunari TAIRA
;  APPLICANT:  Masashi WARASHINA
;  APPLICANT:  Tomoko WARASHINA
;  TITLE OF INVENTION: Nucleic acid enzymes acquiring an activity for cleaving a
;  TITLE OF INVENTION:  target RNA by recognizing another molecule
;  FILE REFERENCE:
;  CURRENT APPLICATION NUMBER: US/09/974,974
;  CURRENT FILING DATE:  2002-03-14
;  PRIOR APPLICATION NUMBER: JP 2000-313320
;  PRIOR FILING DATE: 2000-10-13
;  NUMBER OF SEQ ID NOS: 17
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 13
;   LENGTH: 19
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence: part of bcl-2 mRNA as
;   OTHER INFORMATION: a substrate
US-09-974-974-13

  Query Match             2.9%;  Score 18;  DB 1;  Length 19;
  Best Local Similarity   94.4%;  Pred. No. 70;
  Matches   17;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        190 GACCCGGTCGCCAGGACC 207
              |||||||:||||||||||
Db          2 GACCCGGUCGCCAGGACC 19


RESULT 117
US-09-888-326-757/c
; Sequence 757, Application US/09888326
; Publication No. US20030026801A1
; GENERAL INFORMATION:
;  APPLICANT: Weiner, George
;  APPLICANT:  Hartmann, Gunther
;  TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
;  TITLE OF INVENTION:  Cell Lysis and Treating Cancer
;  FILE REFERENCE: C1039/7052 (AWS)
;  CURRENT APPLICATION NUMBER: US/09/888,326
;  CURRENT FILING DATE:  2001-06-22
;  PRIOR APPLICATION NUMBER: US 60/213,346
;  PRIOR FILING DATE: 2000-06-22
;  NUMBER OF SEQ ID NOS: 848
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 757
;   LENGTH: 20
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide
;   NAME/KEY: misc_feature
;   LOCATION: (0)...(0)
;   OTHER INFORMATION: chimeric phosphorothioate/phosphodiester backbone
;   OTHER INFORMATION: with phosphorothioate at 5' and 3' ends
US-09-888-326-757

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 73;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 118
US-09-776-479-87/c
; Sequence 87, Application US/09776479
; Publication No. US20030087848A1
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  APPLICANT:  Petersen, Deanna M.
;  APPLICANT:  Fouron, Yves
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
;  TITLE OF INVENTION:  Treatment of Asthma and Allergy
;  FILE REFERENCE: C1037/7013 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/09/776,479
;  CURRENT FILING DATE:  2001-02-02
;  PRIOR APPLICATION NUMBER: US 60/179,991
;  PRIOR FILING DATE: 2000-02-03
;  NUMBER OF SEQ ID NOS: 1093
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 87
;   LENGTH: 20
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-776-479-87

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 73;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 119
US-09-776-479-87/c
; Sequence 87, Application US/09776479
; Publication No. US20040067902A9
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  APPLICANT:  Petersen, Deanna M.
;  APPLICANT:  Fouron, Yves
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
;  TITLE OF INVENTION:  Treatment of Asthma and Allergy
;  FILE REFERENCE: C1037/7013 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/09/776,479
;  CURRENT FILING DATE:  2001-02-02
;  PRIOR APPLICATION NUMBER: US 60/179,991
;  PRIOR FILING DATE: 2000-02-03
;  NUMBER OF SEQ ID NOS: 1093
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 87
;   LENGTH: 20
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-776-479-87

  Query Match             2.9%;  Score 18;  DB 1;  Length 20;
  Best Local Similarity   100.0%;  Pred. No. 73;
  Matches   18;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||||||||||||||
Db         18 ATGGCGCACGCTGGGAGA 1


RESULT 120
US-10-314-578-87/c
; Sequence 87, Application US/10314578
; Publication No. US20030212026A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Schetter, Christian
;  APPLICANT:  Vollmer, Jorg
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids
;  FILE REFERENCE: C1039/7035 (HCL/MAT)
```

; CURRENT APPLICATION NUMBER: US/10/314,578
; CURRENT FILING DATE: 2002-12-09
; PRIOR APPLICATION NUMBER: US 60/156,113
; PRIOR FILING DATE: 1999-09-25
; PRIOR APPLICATION NUMBER: US 60/156,135
; PRIOR FILING DATE: 1999-09-27
; PRIOR APPLICATION NUMBER: US 60/227,436
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 1145
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 87
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-10-314-578-87

Query Match 2.9%; Score 18; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 73;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 121
US-10-112-653-81/c
; Sequence 81, Application US/10112653
; Publication No. US20030050268A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Berg, Daniel J.
; TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID FOR
; TITLE OF INVENTION: TREATMENT OF NON-ALLERGIC INFLAMMATORY DISEASES
; FILE REFERENCE: C01039/70060(AWS)
; CURRENT APPLICATION NUMBER: US/10/112,653
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: US 60/279,642
; PRIOR FILING DATE: 2001-03-29
; NUMBER OF SEQ ID NOS: 1040
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 81
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Oligonucleotide
US-10-112-653-81

Query Match 2.9%; Score 18; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 73;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 122
US-10-017-995-87/c
; Sequence 87, Application US/10017995
; Publication No. US20030055014A1
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids
; FILE REFERENCE: C1037/7025 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/10/017,995
; CURRENT FILING DATE: 2001-12-18
; PRIOR APPLICATION NUMBER: US 60/255,534
; PRIOR FILING DATE: 2000-12-14
; NUMBER OF SEQ ID NOS: 1093
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 87
; LENGTH: 20
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-10-017-995-87

Query Match 2.9%; Score 18; DB 1; Length 20;
Best Local Similarity 100.0%; Pred. No. 73;
Matches 18; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||||||||||||||
Db 18 ATGGCGCACGCTGGGAGA 1

RESULT 123
US-10-016-490C-3
; Sequence 3, Application US/10016490C
; Publication No. US20040072769A1
; GENERAL INFORMATION:
; APPLICANT: Yin, James Q.
; TITLE OF INVENTION: Methods for design and selection of short double-stranded
; TITLE OF INVENTION: oligonucleotides, and compounds of gene drugs
; FILE REFERENCE: 01-2793
; CURRENT APPLICATION NUMBER: US/10/016,490C
; CURRENT FILING DATE: 2002-11-22
; NUMBER OF SEQ ID NOS: 51
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 19
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: The same as those in human.
US-10-016-490C-3

Query Match 2.8%; Score 17.4; DB 1; Length 19;
Best Local Similarity 94.7%; Pred. No. 79;
Matches 18; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 187 CGCGACCCGGTCGCCAGGA 205
|| ||||||||||||||||||
Db 1 CGGGACCCGGTCGCCAGGA 19

RESULT 124
US-10-251-117-194/c
; Sequence 194, Application US/10251117
; Publication No. US20030170891A1
; GENERAL INFORMATION:
; APPLICANT: Ribozyme Pharmaceuticals, Inc.
; APPLICANT: McSwiggen, James
; TITLE OF INVENTION: RNA Interference Mediated Inhibition of Epidermal Growth Factor Re
; TITLE OF INVENTION: Gene Expression Using Short Interfering RNA
; FILE REFERENCE: 900/042 (MBHB02-468-A)
; CURRENT APPLICATION NUMBER: US/10/251,117
; CURRENT FILING DATE: 2003-02-24
; PRIOR APPLICATION NUMBER: US 60/393,924
; PRIOR FILING DATE: 2002-07-03
; PRIOR APPLICATION NUMBER: US 10/163,552
; PRIOR FILING DATE: 2002-06-06
; PRIOR APPLICATION NUMBER: US 60/358,580
; PRIOR FILING DATE: 2002-02-20
; PRIOR APPLICATION NUMBER: US 09/916,466
; PRIOR FILING DATE: 2001-07-25
; PRIOR APPLICATION NUMBER: US 60/296,249
; PRIOR FILING DATE: 2001-06-06
; NUMBER OF SEQ ID NOS: 1213
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 194

```
;   LENGTH: 19
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Target sequence/siNA sense r
US-10-251-117-194

  Query Match             2.8%;  Score 17.4;  DB 1;  Length 19;
  Best Local Similarity   94.7%;  Pred. No. 79;
  Matches   18;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        462 TGGGGTCATGTGTGTGGAG 480
              ||||||||||||||| ||||
Db         19 TGGGGTCATGTGTGGGGAG 1


RESULT 125
US-10-251-117-443
; Sequence 443, Application US/10251117
; Publication No. US20030170891A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals, Inc.
;  APPLICANT:  McSwiggen, James
;  TITLE OF INVENTION: RNA Interference Mediated Inhibition of Epidermal Growth Factor R
;  TITLE OF INVENTION:  Gene Expression Using Short Interfering RNA
;  FILE REFERENCE: 900/042 (MBHB02-468-A)
;  CURRENT APPLICATION NUMBER: US/10/251,117
;  CURRENT FILING DATE:  2003-02-24
;  PRIOR APPLICATION NUMBER: US 60/393,924
;  PRIOR FILING DATE: 2002-07-03
;  PRIOR APPLICATION NUMBER: US 10/163,552
;  PRIOR FILING DATE: 2002-06-06
;  PRIOR APPLICATION NUMBER: US 60/358,580
;  PRIOR FILING DATE: 2002-02-20
;  PRIOR APPLICATION NUMBER: US 09/916,466
;  PRIOR FILING DATE: 2001-07-25
;  PRIOR APPLICATION NUMBER: US 60/296,249
;  PRIOR FILING DATE: 2001-06-06
;  NUMBER OF SEQ ID NOS: 1213
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 443
;   LENGTH: 19
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  siNA antisense region
US-10-251-117-443

  Query Match             2.8%;  Score 17.4;  DB 1;  Length 19;
  Best Local Similarity   68.4%;  Pred. No. 79;
  Matches   13;  Conservative    5;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        462 TGGGGTCATGTGTGTGGAG 480
              :||||:||:|:|:| ||||
Db          1 UGGGGUCAUGUGUGGGGAG 19


RESULT 126
US-10-714-310-17
; Sequence 17, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
;  PRIOR FILING DATE: 2002-11-14
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 17
;   LENGTH: 17
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-714-310-17

  Query Match             2.8%;  Score 17;  DB 1;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 78;
  Matches   17;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        367 CCCTTCACCGCGCGGGG 383
              |||||||||||||||||
Db          1 CCCTTCACCGCGCGGGG 17


RESULT 127
US-09-824-468-72/c
; Sequence 72, Application US/09824468
; Patent No. US20020064515A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Weiner, George
;  TITLE OF INVENTION: Methods and Products for Stimulating the
;  TITLE OF INVENTION:  Immune System Using Immunotherapeutic Oligonucleotides and
;  TITLE OF INVENTION:  Cytokines
;  FILE REFERENCE: C1039/7026/HCL
;  CURRENT APPLICATION NUMBER: US/09/824,468
;  CURRENT FILING DATE:  2001-04-02
;  PRIOR APPLICATION NUMBER: 09/286,098
;  PRIOR FILING DATE: 1999-04-02
;  NUMBER OF SEQ ID NOS: 105
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 72
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-824-468-72

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 128
US-09-888-326-750/c
; Sequence 750, Application US/09888326
; Publication No. US20030026801A1
; GENERAL INFORMATION:
;  APPLICANT: Weiner, George
;  APPLICANT:  Hartmann, Gunther
;  TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
;  TITLE OF INVENTION:  Cell Lysis and Treating Cancer
;  FILE REFERENCE: C1039/7052 (AWS)
;  CURRENT APPLICATION NUMBER: US/09/888,326
;  CURRENT FILING DATE:  2001-06-22
;  PRIOR APPLICATION NUMBER: US 60/213,346
;  PRIOR FILING DATE: 2000-06-22
;  NUMBER OF SEQ ID NOS: 848
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 750
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide
;   NAME/KEY: misc_feature
```

; LOCATION: (0)...(0)
; OTHER INFORMATION: phosphorothioate backbone
US-09-888-326-750

  Query Match 2.7%; Score 16.4; DB 1; Length 18;
  Best Local Similarity 94.4%; Pred. No. 92;
  Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
      ||||||| ||||||||||
Db 18 ATGGCGCTCGCTGGGAGA 1

RESULT 129
US-09-888-326-751/c
; Sequence 751, Application US/09888326
; Publication No. US20030026801A1
; GENERAL INFORMATION:
; APPLICANT: Weiner, George
; APPLICANT: Hartmann, Gunther
; TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
; TITLE OF INVENTION: Cell Lysis and Treating Cancer
; FILE REFERENCE: C1039/7052 (AWS)
; CURRENT APPLICATION NUMBER: US/09/888,326
; CURRENT FILING DATE: 2001-06-22
; PRIOR APPLICATION NUMBER: US 60/213,346
; PRIOR FILING DATE: 2000-06-22
; NUMBER OF SEQ ID NOS: 848
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 751
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide
; NAME/KEY: misc_feature
; LOCATION: (0)...(0)
; OTHER INFORMATION: phosphorothioate backbone
US-09-888-326-751

  Query Match 2.7%; Score 16.4; DB 1; Length 18;
  Best Local Similarity 94.4%; Pred. No. 92;
  Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
      ||||||| ||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 130
US-09-888-326-753/c
; Sequence 753, Application US/09888326
; Publication No. US20030026801A1
; GENERAL INFORMATION:
; APPLICANT: Weiner, George
; APPLICANT: Hartmann, Gunther
; TITLE OF INVENTION: Methods for Enhancing Antibody-Induced
; TITLE OF INVENTION: Cell Lysis and Treating Cancer
; FILE REFERENCE: C1039/7052 (AWS)
; CURRENT APPLICATION NUMBER: US/09/888,326
; CURRENT FILING DATE: 2001-06-22
; PRIOR APPLICATION NUMBER: US 60/213,346
; PRIOR FILING DATE: 2000-06-22
; NUMBER OF SEQ ID NOS: 848
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 753
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic oligonucleotide
; NAME/KEY: misc_feature
; LOCATION: (0)...(0)
; OTHER INFORMATION: phosphorothioate backbone
US-09-888-326-753

  Query Match 2.7%; Score 16.4; DB 1; Length 18;
  Best Local Similarity 94.4%; Pred. No. 92;
  Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
      ||||||| ||||||||||
Db 18 ATGGCGTACGCTGGGAGA 1

RESULT 131
US-09-931-583-69/c
; Sequence 69, Application US/09931583
; Publication No. US20030050263A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur
; APPLICANT: Klinman, Dennis
; APPLICANT: Steinberg, Alfred
; TITLE OF INVENTION: Methods and Products for Treating HIV Infection
; FILE REFERENCE: C1039/7053(HCL)
; CURRENT APPLICATION NUMBER: US/09/931,583
; CURRENT FILING DATE: 2001-08-16
; PRIOR APPLICATION NUMBER: US 08/276,358
; PRIOR FILING DATE: 1994-07-15
; PRIOR APPLICATION NUMBER: US 09/415,142
; PRIOR FILING DATE: 1999-10-09
; NUMBER OF SEQ ID NOS: 75
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 69
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: Synthetic Oligonucleotide
US-09-931-583-69

  Query Match 2.7%; Score 16.4; DB 1; Length 18;
  Best Local Similarity 94.4%; Pred. No. 92;
  Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
      ||||||| ||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 132
US-09-776-479-78/c
; Sequence 78, Application US/09776479
; Publication No. US20030087848A1
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; APPLICANT: Petersen, Deanna M.
; APPLICANT: Fouron, Yves
; TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
; TITLE OF INVENTION: Treatment of Asthma and Allergy
; FILE REFERENCE: C1037/7013 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/09/776,479
; CURRENT FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: US 60/179,991
; PRIOR FILING DATE: 2000-02-03
; NUMBER OF SEQ ID NOS: 1093
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 78
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-776-479-78

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCTCGCTGGGAGA 1

RESULT 133
US-09-776-479-78/c
; Sequence 78, Application US/09776479
; Publication No. US20040067902A9
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; APPLICANT: Petersen, Deanna M.
; APPLICANT: Fouron, Yves
; TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
; TITLE OF INVENTION: Treatment of Asthma and Allergy
; FILE REFERENCE: C1037/7013 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/09/776,479
; CURRENT FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: US 60/179,991
; PRIOR FILING DATE: 2000-02-03
; NUMBER OF SEQ ID NOS: 1093
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 78
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-776-479-78

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCTCGCTGGGAGA 1

RESULT 134
US-09-776-479-79/c
; Sequence 79, Application US/09776479
; Publication No. US20030087848A1
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; APPLICANT: Petersen, Deanna M.
; APPLICANT: Fouron, Yves
; TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
; TITLE OF INVENTION: Treatment of Asthma and Allergy
; FILE REFERENCE: C1037/7013 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/09/776,479
; CURRENT FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: US 60/179,991
; PRIOR FILING DATE: 2000-02-03
; NUMBER OF SEQ ID NOS: 1093
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 79
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-776-479-79

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 135
US-09-776-479-79/c
; Sequence 79, Application US/09776479
; Publication No. US20040067902A9
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; APPLICANT: Petersen, Deanna M.
; APPLICANT: Fouron, Yves
; TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
; TITLE OF INVENTION: Treatment of Asthma and Allergy
; FILE REFERENCE: C1037/7013 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/09/776,479
; CURRENT FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: US 60/179,991
; PRIOR FILING DATE: 2000-02-03
; NUMBER OF SEQ ID NOS: 1093
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 79
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-776-479-79

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 136
US-09-776-479-406/c
; Sequence 406, Application US/09776479
; Publication No. US20030087848A1
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; APPLICANT: Petersen, Deanna M.
; APPLICANT: Fouron, Yves
; TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
; TITLE OF INVENTION: Treatment of Asthma and Allergy
; FILE REFERENCE: C1037/7013 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/09/776,479
; CURRENT FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: US 60/179,991
; PRIOR FILING DATE: 2000-02-03
; NUMBER OF SEQ ID NOS: 1093
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 406
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-09-776-479-406

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
|||||| ||||||||||
Db 18 ATGGCGTACGCTGGGAGA 1

RESULT 137

```
US-09-776-479-406/c
; Sequence 406, Application US/09776479
; Publication No. US20040067902A9
; GENERAL INFORMATION:
;  APPLICANT: Bratzler, Robert L.
;  APPLICANT:  Petersen, Deanna M.
;  APPLICANT:  Fouron, Yves
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acids for the
;  TITLE OF INVENTION:  Treatment of Asthma and Allergy
;  FILE REFERENCE: C1037/7013 (HCL/MAT)
;  CURRENT APPLICATION NUMBER: US/09/776,479
;  CURRENT FILING DATE:  2001-02-02
;  PRIOR APPLICATION NUMBER: US 60/179,991
;  PRIOR FILING DATE: 2000-02-03
;  NUMBER OF SEQ ID NOS: 1093
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 406
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Sequence
US-09-776-479-406

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              |||||| ||||||||||||
Db         18 ATGGCGTACGCTGGGAGA 1


RESULT 138
US-09-954-987B-113/c
; Sequence 113, Application US/09954987B
; Publication No. US20030104523A1
; GENERAL INFORMATION:
;  APPLICANT: Stefan Bauer
;  APPLICANT:  Grayson B. Lipford
;  APPLICANT:  Hermann Wagner
;  TITLE OF INVENTION: PROCESS FOR HIGH THROUGHPUT SCREENING OF
;  TITLE OF INVENTION:  CpG-BASED IMMUNO-AGONIST/ANTAGONIST
;  FILE REFERENCE: C1041/7016 (AWS)
;  CURRENT APPLICATION NUMBER: US/09/954,987B
;  CURRENT FILING DATE:  2001-09-17
;  PRIOR APPLICATION NUMBER: US 60/233,035
;  PRIOR FILING DATE: 2000-09-15
;  PRIOR APPLICATION NUMBER: US 60/263,657
;  PRIOR FILING DATE: 2001-01-23
;  PRIOR APPLICATION NUMBER: US 60/291,726
;  PRIOR FILING DATE: 2001-05-17
;  PRIOR APPLICATION NUMBER: US 60/300,210
;  PRIOR FILING DATE: 2001-06-22
;  NUMBER OF SEQ ID NOS: 230
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 113
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide
US-09-954-987B-113

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 139
US-10-373-381-60/c
; Sequence 60, Application US/10373381
; Publication No. US20040030118A1
; GENERAL INFORMATION:
;  APPLICANT: Wagner, Hermann
;  APPLICANT:  Lipford, Grayson
;  TITLE OF INVENTION: Methods for Regulating Hematopoiesis
;  TITLE OF INVENTION:  Using CpG-Oligonucleotides
;  FILE REFERENCE: C01041.70035.US
;  CURRENT APPLICATION NUMBER: US/10/373,381
;  CURRENT FILING DATE:  2003-02-24
;  PRIOR APPLICATION NUMBER: US 09/241,653
;  PRIOR FILING DATE: 1999-02-02
;  PRIOR APPLICATION NUMBER: US 60/085,516
;  PRIOR FILING DATE: 1998-05-14
;  NUMBER OF SEQ ID NOS: 90
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 60
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide
US-10-373-381-60

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 140
US-10-399-356-2/c
; Sequence 2, Application US/10399356
; Publication No. US20040047869A1
; GENERAL INFORMATION:
;  APPLICANT: GARCON, NATHALIE
;  APPLICANT:  CATHERINE MARIE GHISLAINE GERARD
;  APPLICANT:  JEAN STEPHENNE
;  TITLE OF INVENTION: ADJUVANT COMPOSITION COMPRISING AN
;  TITLE OF INVENTION:  IMMUNOSTIMULATORY LOIGONUCLEOTIDE AND A TOCOL
;  FILE REFERENCE: B45248
;  CURRENT APPLICATION NUMBER: US/10/399,356
;  CURRENT FILING DATE:  2003-04-15
;  PRIOR APPLICATION NUMBER: PCT/EP01/11985
;  PRIOR FILING DATE: 2001-10-16
;  PRIOR APPLICATION NUMBER: GB 0025577.8
;  PRIOR FILING DATE: 2000-10-18
;  NUMBER OF SEQ ID NOS: 5
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Nucleotides based on bacterial sequences
;   OTHER INFORMATION: comprising dinucleotide CpB repeats
US-10-399-356-2

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              |||||||| |||||||||
Db         18 ATGGCGCAGGCTGGGAGA 1


RESULT 141
```

US-10-314-578-78/c
; Sequence 78, Application US/10314578
; Publication No. US20030212026A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Schetter, Christian
; APPLICANT: Vollmer, Jorg
; TITLE OF INVENTION: Immunostimulatory Nucleic Acids
; FILE REFERENCE: C1039/7035 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/10/314,578
; CURRENT FILING DATE: 2002-12-09
; PRIOR APPLICATION NUMBER: US 60/156,113
; PRIOR FILING DATE: 1999-09-25
; PRIOR APPLICATION NUMBER: US 60/156,135
; PRIOR FILING DATE: 1999-09-27
; PRIOR APPLICATION NUMBER: US 60/227,436
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 1145
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 78
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-10-314-578-78

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCTCGCTGGGAGA 1

RESULT 142
US-10-314-578-79/c
; Sequence 79, Application US/10314578
; Publication No. US20030212026A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Schetter, Christian
; APPLICANT: Vollmer, Jorg
; TITLE OF INVENTION: Immunostimulatory Nucleic Acids
; FILE REFERENCE: C1039/7035 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/10/314,578
; CURRENT FILING DATE: 2002-12-09
; PRIOR APPLICATION NUMBER: US 60/156,113
; PRIOR FILING DATE: 1999-09-25
; PRIOR APPLICATION NUMBER: US 60/156,135
; PRIOR FILING DATE: 1999-09-27
; PRIOR APPLICATION NUMBER: US 60/227,436
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 1145
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 79
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-10-314-578-79

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 143
US-10-314-578-406/c
; Sequence 406, Application US/10314578
; Publication No. US20030212026A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Schetter, Christian
; APPLICANT: Vollmer, Jorg
; TITLE OF INVENTION: Immunostimulatory Nucleic Acids
; FILE REFERENCE: C1039/7035 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/10/314,578
; CURRENT FILING DATE: 2002-12-09
; PRIOR APPLICATION NUMBER: US 60/156,113
; PRIOR FILING DATE: 1999-09-25
; PRIOR APPLICATION NUMBER: US 60/156,135
; PRIOR FILING DATE: 1999-09-27
; PRIOR APPLICATION NUMBER: US 60/227,436
; PRIOR FILING DATE: 2000-08-23
; NUMBER OF SEQ ID NOS: 1145
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 406
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-10-314-578-406

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
|||||| ||||||||||
Db 18 ATGGCGTACGCTGGGAGA 1

RESULT 144
US-10-112-653-72/c
; Sequence 72, Application US/10112653
; Publication No. US20030050268A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Berg, Daniel J.
; TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID FOR
; TITLE OF INVENTION: TREATMENT OF NON-ALLERGIC INFLAMMATORY DISEASES
; FILE REFERENCE: C01039/70060(AWS)
; CURRENT APPLICATION NUMBER: US/10/112,653
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: US 60/279,642
; PRIOR FILING DATE: 2001-03-29
; NUMBER OF SEQ ID NOS: 1040
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 72
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Oligonucleotide
US-10-112-653-72

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCTCGCTGGGAGA 1

RESULT 145
US-10-112-653-73/c
; Sequence 73, Application US/10112653

; Publication No. US20030050268A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Berg, Daniel J.
; TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID FOR
; TITLE OF INVENTION: TREATMENT OF NON-ALLERGIC INFLAMMATORY DISEASES
; FILE REFERENCE: C01039/70060(AWS)
; CURRENT APPLICATION NUMBER: US/10/112,653
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: US 60/279,642
; PRIOR FILING DATE: 2001-03-29
; NUMBER OF SEQ ID NOS: 1040
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 73
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Oligonucleotide
US-10-112-653-73

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 146
US-10-112-653-393/c
; Sequence 393, Application US/10112653
; Publication No. US20030050268A1
; GENERAL INFORMATION:
; APPLICANT: Krieg, Arthur M.
; APPLICANT: Berg, Daniel J.
; TITLE OF INVENTION: IMMUNOSTIMULATORY NUCLEIC ACID FOR
; TITLE OF INVENTION: TREATMENT OF NON-ALLERGIC INFLAMMATORY DISEASES
; FILE REFERENCE: C01039/70060(AWS)
; CURRENT APPLICATION NUMBER: US/10/112,653
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: US 60/279,642
; PRIOR FILING DATE: 2001-03-29
; NUMBER OF SEQ ID NOS: 1040
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 393
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Oligonucleotide
US-10-112-653-393

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
|||||| ||||||||||
Db 18 ATGGCGTACGCTGGGAGA 1

RESULT 147
US-10-017-995-78/c
; Sequence 78, Application US/10017995
; Publication No. US20030055014A1
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids
; FILE REFERENCE: C1037/7025 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/10/017,995
; CURRENT FILING DATE: 2001-12-18
; PRIOR APPLICATION NUMBER: US 60/255,534
; PRIOR FILING DATE: 2000-12-14
; NUMBER OF SEQ ID NOS: 1093
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 78
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-10-017-995-78

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCTCGCTGGGAGA 1

RESULT 148
US-10-017-995-79/c
; Sequence 79, Application US/10017995
; Publication No. US20030055014A1
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids
; FILE REFERENCE: C1037/7025 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/10/017,995
; CURRENT FILING DATE: 2001-12-18
; PRIOR APPLICATION NUMBER: US 60/255,534
; PRIOR FILING DATE: 2000-12-14
; NUMBER OF SEQ ID NOS: 1093
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 79
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-10-017-995-79

Query Match 2.7%; Score 16.4; DB 1; Length 18;
Best Local Similarity 94.4%; Pred. No. 92;
Matches 17; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 ATGGCGCACGCTGGGAGA 18
||||||| ||||||||||
Db 18 ATGGCGCGCGCTGGGAGA 1

RESULT 149
US-10-017-995-406/c
; Sequence 406, Application US/10017995
; Publication No. US20030055014A1
; GENERAL INFORMATION:
; APPLICANT: Bratzler, Robert L.
; TITLE OF INVENTION: Inhibition of Angiogenesis by Nucleic Acids
; FILE REFERENCE: C1037/7025 (HCL/MAT)
; CURRENT APPLICATION NUMBER: US/10/017,995
; CURRENT FILING DATE: 2001-12-18
; PRIOR APPLICATION NUMBER: US 60/255,534
; PRIOR FILING DATE: 2000-12-14
; NUMBER OF SEQ ID NOS: 1093
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 406
; LENGTH: 18
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic Sequence
US-10-017-995-406

```
  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              |||||| ||||||||||
Db         18 ATGGCGTACGCTGGGAGA 1


RESULT 150
US-10-161-229-66/c
; Sequence 66, Application US/10161229
; Publication No. US20030100527A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Hartmann, Gunther
;  TITLE OF INVENTION: Immunostimulatory Nucleic Acid Molecules for
;  TITLE OF INVENTION:  Activating Dendritic Cells
;  FILE REFERENCE: C01039/70061
;  CURRENT APPLICATION NUMBER: US/10/161,229
;  CURRENT FILING DATE:  2002-06-03
;  PRIOR APPLICATION NUMBER: US 09/191,170
;  PRIOR FILING DATE: 1998-11-13
;  PRIOR APPLICATION NUMBER: US 08/960,774
;  PRIOR FILING DATE: 1997-10-30
;  PRIOR APPLICATION NUMBER: US 08/738,652
;  PRIOR FILING DATE: 1996-10-30
;  PRIOR APPLICATION NUMBER: US 08/386,063
;  PRIOR FILING DATE: 1995-02-07
;  PRIOR APPLICATION NUMBER: US 08/276,358
;  PRIOR FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 99
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 66
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-161-229-66

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 151
US-10-187-264A-72/c
; Sequence 72, Application US/10187264A
; Publication No. US20030162734A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Klinman, Dennis
;  APPLICANT:  Steinberg, Alfred D.
;  TITLE OF INVENTION: Methods for Treating and Preventing
;  TITLE OF INVENTION:  Infectious Disease
;  FILE REFERENCE: C01039.70062.US
;  CURRENT APPLICATION NUMBER: US/10/187,264A
;  CURRENT FILING DATE:  2002-06-28
;  PRIOR APPLICATION NUMBER: US 09/630,319
;  PRIOR FILING DATE: 2000-07-31
;  PRIOR APPLICATION NUMBER: US 08/960,774
;  PRIOR FILING DATE: 1997-10-30
;  PRIOR APPLICATION NUMBER: US 08/738,652
;  PRIOR FILING DATE: 1996-10-30
;  PRIOR APPLICATION NUMBER: US 08/386,063
;  PRIOR FILING DATE: 1995-02-07
;  PRIOR APPLICATION NUMBER: US 08/276,358
;  PRIOR FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 124
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 72
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-187-264A-72

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 152
US-10-265-072-110/c
; Sequence 110, Application US/10265072
; Publication No. US20030166001A1
; GENERAL INFORMATION:
;  APPLICANT: Lipford, Grayson
;  TITLE OF INVENTION: TOLL-LIKE RECEPTOR 3 SIGNALING AGONISTS AND ANTAGONISTS
;  FILE REFERENCE: C01041.70031.US
;  CURRENT APPLICATION NUMBER: US/10/265,072
;  CURRENT FILING DATE:  2002-10-05
;  NUMBER OF SEQ ID NOS: 117
;  SOFTWARE: PatentIn version 3.1
; SEQ ID NO 110
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide
US-10-265-072-110

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 153
US-10-306-522-72/c
; Sequence 72, Application US/10306522
; Publication No. US20030191079A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Klinman, Dennis
;  APPLICANT:  Steinberg, Alfred D.
;  TITLE OF INVENTION: Methods for Treating and Preventing
;  TITLE OF INVENTION:  Infectious Disease
;  FILE REFERENCE: C01039.70062.US
;  CURRENT APPLICATION NUMBER: US/10/306,522
;  CURRENT FILING DATE:  2002-11-27
;  PRIOR APPLICATION NUMBER: US 09/630,319
;  PRIOR FILING DATE: 2000-07-31
;  PRIOR APPLICATION NUMBER: US 08/960,774
;  PRIOR FILING DATE: 1997-10-30
;  PRIOR APPLICATION NUMBER: US 08/738,652
;  PRIOR FILING DATE: 1996-10-30
;  PRIOR APPLICATION NUMBER: US 08/386,063
;  PRIOR FILING DATE: 1995-02-07
;  PRIOR APPLICATION NUMBER: US 08/276,358
;  PRIOR FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 124
```

```
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 72
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-306-522-72

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 154
US-10-719-493-72/c
; Sequence 72, Application US/10719493
; Publication No. US20040087538A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  TITLE OF INVENTION: Methods of Treating Cancer Using
;  TITLE OF INVENTION:  Immunostimulatory Oligonucleotides
;  FILE REFERENCE: C1039/7021/HCL
;  CURRENT APPLICATION NUMBER: US/10/719,493
;  CURRENT FILING DATE:  2003-11-21
;  PRIOR APPLICATION NUMBER: US 08/960,774
;  PRIOR FILING DATE: 1997-10-30
;  PRIOR APPLICATION NUMBER: US 08/738,652
;  PRIOR FILING DATE: 1996-10-30
;  PRIOR APPLICATION NUMBER: US 08/386,063
;  PRIOR FILING DATE: 1995-02-07
;  PRIOR APPLICATION NUMBER: US 08/276,358
;  PRIOR FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 123
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 72
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-719-493-72

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 155
US-10-627-331-72/c
; Sequence 72, Application US/10627331
; Publication No. US20040106568A1
; GENERAL INFORMATION:
;  APPLICANT: Krieg, Arthur M.
;  APPLICANT:  Klinman, Dennis
;  APPLICANT:  Steinberg, Alfred D.
;  TITLE OF INVENTION: Methods for Treating and Preventing
;  TITLE OF INVENTION:  Infectious Disease
;  FILE REFERENCE: C01039.70062.US
;  CURRENT APPLICATION NUMBER: US/10/627,331
;  CURRENT FILING DATE:  2003-07-25
;  PRIOR APPLICATION NUMBER: US 09/630,319
;  PRIOR FILING DATE: 2000-07-31
;  PRIOR APPLICATION NUMBER: US 08/960,774
;  PRIOR FILING DATE: 1997-10-30
;  PRIOR APPLICATION NUMBER: US 08/738,652
;  PRIOR FILING DATE: 1996-10-30
;  PRIOR APPLICATION NUMBER: US 08/386,063
;  PRIOR FILING DATE: 1995-02-07
;  PRIOR APPLICATION NUMBER: US 08/276,358
;  PRIOR FILING DATE: 1994-07-15
;  NUMBER OF SEQ ID NOS: 124
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 72
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic Oligonucleotide
US-10-627-331-72

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              ||||||| ||||||||||
Db         18 ATGGCGCGCGCTGGGAGA 1


RESULT 156
US-10-735-592-53/c
; Sequence 53, Application US/10735592
; Publication No. US20040171571A1
; GENERAL INFORMATION:
;  APPLICANT: Art, Krieg
;  APPLICANT:  Joerg, Vollmer
;  TITLE OF INVENTION: 5' CPG Nucleic Acids and Methods of Use
;  FILE REFERENCE: C1037.70038US01
;  CURRENT APPLICATION NUMBER: US/10/735,592
;  CURRENT FILING DATE:  2003-12-11
;  NUMBER OF SEQ ID NOS: 69
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 53
;   LENGTH: 18
;   TYPE: DNA
;   ORGANISM: Artificial
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide
US-10-735-592-53

  Query Match             2.7%;  Score 16.4;  DB 1;  Length 18;
  Best Local Similarity   94.4%;  Pred. No. 92;
  Matches   17;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy          1 ATGGCGCACGCTGGGAGA 18
              |||||||||||||||| ||
Db         18 ATGGCGCACGCTGGGCGA 1


RESULT 157
US-09-740-332-129
; Sequence 129, Application US/09740332
; Publication No. US20030125270A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relatec
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: RPI 400/003
;  CURRENT APPLICATION NUMBER: US/09/740,332
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9704
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 129
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
```

```
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-740-332-129

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 1.1e+02;
  Matches   14;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        247 GGGCCTGCGCTCAGCCC 263
              |||||:| ||:||||||
Db          1 GGGCCUGGGCUCAGCCC 17


RESULT 158
US-09-740-332-4426/c
; Sequence 4426, Application US/09740332
; Publication No. US20030125270A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: RPI 400/003
;  CURRENT APPLICATION NUMBER: US/09/740,332
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9704
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4426
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-740-332-4426

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.1e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        248 GGCCTGCGCTCAGCCCG 264
              |||||| ||||||||||
Db         17 GGCCTGGGCTCAGCCCG 1


RESULT 159
US-09-817-879-129
; Sequence 129, Application US/09817879
; Publication No. US20030171311A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: MBHB00-801-F
;  CURRENT APPLICATION NUMBER: US/09/817,879
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9703
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 129
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-817-879-129

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 1.1e+02;
  Matches   14;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        247 GGGCCTGCGCTCAGCCC 263
              |||||:| ||:||||||
Db          1 GGGCCUGGGCUCAGCCC 17


RESULT 160
US-09-817-879-4426/c
; Sequence 4426, Application US/09817879
; Publication No. US20030171311A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals Inc.
;  TITLE OF INVENTION: Enzymatic Nucleic Acid Treatment of Diseases or Conditions Relate
;  TITLE OF INVENTION:  Hepatitis C Virus Infection
;  FILE REFERENCE: MBHB00-801-F
;  CURRENT APPLICATION NUMBER: US/09/817,879
;  CURRENT FILING DATE:  2001-03-26
;  NUMBER OF SEQ ID NOS: 9703
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4426
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: artificial sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-09-817-879-4426

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.1e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        248 GGCCTGCGCTCAGCCCG 264
              |||||| ||||||||||
Db         17 GGCCTGGGCTCAGCCCG 1


RESULT 161
US-10-163-552-807/c
; Sequence 807, Application US/10163552
; Publication No. US20030105051A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals, Inc.
;  APPLICANT:  McSwiggen, Jim
;  TITLE OF INVENTION: Nucleic acid treatment of diseases or conditions related to level
;  TITLE OF INVENTION:  HER2
;  FILE REFERENCE: MBHB01-1653-A (400/014)
;  CURRENT APPLICATION NUMBER: US/10/163,552
;  CURRENT FILING DATE:  2002-06-06
;  NUMBER OF SEQ ID NOS: 1997
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 807
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: Homo sapiens
US-10-163-552-807

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.1e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        464 GGGTCATGTGTGTGGAG 480
              |||||||||||| ||||
Db         17 GGGTCATGTGTGGGGAG 1


RESULT 162
US-10-163-552-808/c
; Sequence 808, Application US/10163552
; Publication No. US20030105051A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals, Inc.
;  APPLICANT:  McSwiggen, Jim
```

```
;  TITLE OF INVENTION: Nucleic acid treatment of diseases or conditions related to level
;  TITLE OF INVENTION:  HER2
;  FILE REFERENCE: MBHB01-1653-A (400/014)
;  CURRENT APPLICATION NUMBER: US/10/163,552
;  CURRENT FILING DATE:  2002-06-06
;  NUMBER OF SEQ ID NOS: 1997
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 808
;    LENGTH: 17
;    TYPE: RNA
;    ORGANISM: Homo sapiens
US-10-163-552-808

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.1e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        462 TGGGGTCATGTGTGTGG 478
              ||||||||||||||| ||
Db         17 TGGGGTCATGTGTGGGG 1


RESULT 163
US-10-138-674-3243/c
; Sequence 3243, Application US/10138674
; Publication No. US20040077565A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals, Inc.
;  APPLICANT:  Pavco, Pam
;  APPLICANT:  McSwiggen, Jim
;  APPLICANT:  Stinchcomb, Dan
;  APPLICANT:  Escobedo, Jaime
;  TITLE OF INVENTION: Method and Reagent for the Treatment of Diseases or Conditions Re
;  TITLE OF INVENTION:  Levels of Vascular Endothelial Growth Factor Receptor
;  FILE REFERENCE: MBHB00-876-N (400/049)
;  CURRENT APPLICATION NUMBER: US/10/138,674
;  CURRENT FILING DATE:  2002-05-03
;  NUMBER OF SEQ ID NOS: 20822
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3243
;    LENGTH: 17
;    TYPE: RNA
;    ORGANISM: Mus musculus
US-10-138-674-3243

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.1e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        563 GGATCCAGGATAACGGA 579
              |||||||||||||| |||
Db         17 GGATCCAGGATAAAGGA 1


RESULT 164
US-10-287-949A-3243/c
; Sequence 3243, Application US/10287949A
; Publication No. US20040102389A1
; GENERAL INFORMATION:
;  APPLICANT: Ribozyme Pharmaceuticals, Inc.
;  APPLICANT:  Pavco, Pam
;  APPLICANT:  McSwiggen, Jim
;  APPLICANT:  Stinchcomb, Dan
;  APPLICANT:  Escobedo, Jaime
;  TITLE OF INVENTION: Method and Reagent for the Treatment of Diseases or Conditions Re
;  TITLE OF INVENTION:  Levels of Vascular Endothelial Growth Factor Receptor
;  FILE REFERENCE: MBHB00-876-N (400/049)
;  CURRENT APPLICATION NUMBER: US/10/287,949A
;  CURRENT FILING DATE:  2003-04-11
;  NUMBER OF SEQ ID NOS: 20822
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3243
;    LENGTH: 17
;    TYPE: RNA
;    ORGANISM: Mus musculus
US-10-287-949A-3243

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.1e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        563 GGATCCAGGATAACGGA 579
              |||||||||||||| |||
Db         17 GGATCCAGGATAAAGGA 1


RESULT 165
US-10-669-841-2722
; Sequence 2722, Application US/10669841
; Publication No. US20040127446A1
; GENERAL INFORMATION:
;  APPLICANT: Sirna Therapeutics, Inc.
;  APPLICANT:  Lawrence, Blatt
;  APPLICANT:  Dennis, Macejak
;  APPLICANT:  James, McSwiggen
;  APPLICANT:  David, Morrissey
;  APPLICANT:  Pamela, Pavco
;  APPLICANT:  Patrice, Lee
;  APPLICANT:  Kenneth, Draper
;  APPLICANT:  Elisabeth, Roberts
;  TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPAT
;  TITLE OF INVENTION:  VIRUS REPLICATION
;  FILE REFERENCE: 400/042US  (MBHB02-249-E)
;  CURRENT APPLICATION NUMBER: US/10/669,841
;  CURRENT FILING DATE:  2003-09-23
;  PRIOR APPLICATION NUMBER: PCT/US02/09187
;  PRIOR FILING DATE: 2002-03-26
;  PRIOR APPLICATION NUMBER: US 60/296,876
;  PRIOR FILING DATE: 2001-06-08
;  PRIOR APPLICATION NUMBER: US 60/335,059
;  PRIOR FILING DATE: 2001-10-24
;  PRIOR APPLICATION NUMBER: US 60/337,055
;  PRIOR FILING DATE: 2001-12-05
;  PRIOR APPLICATION NUMBER: US 60/358,580
;  PRIOR FILING DATE: 2002-02-20
;  PRIOR APPLICATION NUMBER: US 60/363,124
;  PRIOR FILING DATE: 2002-03-11
;  PRIOR APPLICATION NUMBER: US 09/817,879
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 09/740,332
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: US 09/611,931
;  PRIOR FILING DATE: 2000-07-07
;  PRIOR APPLICATION NUMBER: US 09/504,321
;  PRIOR FILING DATE: 2000-02-15
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 16207
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2722
;    LENGTH: 17
;    TYPE: RNA
;    ORGANISM: Artificial Sequence
;    FEATURE:
;    OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid
;    FEATURE:
;    NAME/KEY: misc_feature
;    LOCATION:
;    OTHER INFORMATION: oligonucleotide substrate
US-10-669-841-2722

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   82.4%;  Pred. No. 1.1e+02;
  Matches   14;  Conservative    2;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        247 GGGCCTGCGCTCAGCCC 263
              |||||:| ||:||||||
```

```
Db          1 GGGCCUGGGCUCAGCCC 17


RESULT 166
US-10-669-841-7019/c
; Sequence 7019, Application US/10669841
; Publication No. US20040127446A1
; GENERAL INFORMATION:
;  APPLICANT: Sirna Therapeutics, Inc.
;  APPLICANT:  Lawrence, Blatt
;  APPLICANT:  Dennis, Macejak
;  APPLICANT:  James, McSwiggen
;  APPLICANT:  David, Morrissey
;  APPLICANT:  Pamela, Pavco
;  APPLICANT:  Patrice, Lee
;  APPLICANT:  Kenneth, Draper
;  APPLICANT:  Elisabeth, Roberts
;  TITLE OF INVENTION: OLIGONUCLEOTIDE MEDIATED INHIBITION OF HEPATITIS B VIRUS AND HEPA
;  TITLE OF INVENTION:  VIRUS REPLICATION
;  FILE REFERENCE: 400/042US  (MBHB02-249-E)
;  CURRENT APPLICATION NUMBER: US/10/669,841
;  CURRENT FILING DATE:  2003-09-23
;  PRIOR APPLICATION NUMBER: PCT/US02/09187
;  PRIOR FILING DATE: 2002-03-26
;  PRIOR APPLICATION NUMBER: US 60/296,876
;  PRIOR FILING DATE: 2001-06-08
;  PRIOR APPLICATION NUMBER: US 60/335,059
;  PRIOR FILING DATE: 2001-10-24
;  PRIOR APPLICATION NUMBER: US 60/337,055
;  PRIOR FILING DATE: 2001-12-05
;  PRIOR APPLICATION NUMBER: US 60/358,580
;  PRIOR FILING DATE: 2002-02-20
;  PRIOR APPLICATION NUMBER: US 60/363,124
;  PRIOR FILING DATE: 2002-03-11
;  PRIOR APPLICATION NUMBER: US 09/817,879
;  PRIOR FILING DATE: 2001-03-26
;  PRIOR APPLICATION NUMBER: US 09/740,332
;  PRIOR FILING DATE: 2000-12-18
;  PRIOR APPLICATION NUMBER: US 09/611,931
;  PRIOR FILING DATE: 2000-07-07
;  PRIOR APPLICATION NUMBER: US 09/504,321
;  PRIOR FILING DATE: 2000-02-15
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 16207
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 7019
;   LENGTH: 17
;   TYPE: RNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Description of Artificial Sequence:  Nucleic Acid
;   FEATURE:
;   NAME/KEY: misc_feature
;   LOCATION:
;   OTHER INFORMATION: oligonucleotide substrate
US-10-669-841-7019

  Query Match             2.5%;  Score 15.4;  DB 1;  Length 17;
  Best Local Similarity   94.1%;  Pred. No. 1.1e+02;
  Matches   16;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        248 GGCCTGCGCTCAGCCCG 264
              ||||||  ||||||||||
Db         17 GGCCTGGGCTCAGCCCG 1


RESULT 167
US-09-932-129-2
; Sequence 2, Application US/09932129
; Patent No. US20020119533A1
; GENERAL INFORMATION:
;  APPLICANT: Brown, Bob D.
;  TITLE OF INVENTION: AMPLIFICATION PRIMER PAIRS AND USE
;  TITLE OF INVENTION:  THEREOF
;  FILE REFERENCE: OASBIO.002C1
;  CURRENT APPLICATION NUMBER: US/09/932,129
;  CURRENT FILING DATE:  2001-08-16
;  PRIOR APPLICATION NUMBER: PCT/US00/09230
;  PRIOR FILING DATE: 2000-04-07
;  PRIOR APPLICATION NUMBER: US 60/128,378
;  PRIOR FILING DATE: 1999-04-08
;  NUMBER OF SEQ ID NOS: 12
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide primers
US-09-932-129-2

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        267 GCCACCTGTGGTCC 280
              ||||||||||||||
Db          1 GCCACCTGTGGTCC 14


RESULT 168
US-10-621-009-2
; Sequence 2, Application US/10621009
; Publication No. US20040014129A1
; GENERAL INFORMATION:
;  APPLICANT: Brown, Bob D.
;  TITLE OF INVENTION: AMPLIFICATION PRIMER PAIRS AND USE
;  TITLE OF INVENTION:  THEREOF
;  FILE REFERENCE: OASBIO.002C2
;  CURRENT APPLICATION NUMBER: US/10/621,009
;  CURRENT FILING DATE:  2003-07-15
;  PRIOR APPLICATION NUMBER: US 09/932,129
;  PRIOR FILING DATE: 2001-08-16
;  PRIOR APPLICATION NUMBER: PCT/US00/09230
;  PRIOR FILING DATE: 2000-04-07
;  PRIOR APPLICATION NUMBER: US 60/128,378
;  PRIOR FILING DATE: 1999-04-08
;  NUMBER OF SEQ ID NOS: 12
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 2
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   OTHER INFORMATION: Synthetic oligonucleotide primers
US-10-621-009-2

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        267 GCCACCTGTGGTCC 280
              ||||||||||||||
Db          1 GCCACCTGTGGTCC 14


RESULT 169
US-10-714-310-8/c
; Sequence 8, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
```

```
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
;  PRIOR FILING DATE: 2002-11-14
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 8
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-714-310-8

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        303 CGACGACTTCTCCC 316
              ||||||||||||||
Db         14 CGACGACTTCTCCC 1


RESULT 170
US-10-714-310-9/c
; Sequence 9, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
;  PRIOR FILING DATE: 2002-11-14
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 9
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-714-310-9

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        288 CCTCCGCCAAGCCG 301
              ||||||||||||||
Db         14 CCTCCGCCAAGCCG 1


RESULT 171
US-10-714-310-10/c
; Sequence 10, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
;  PRIOR FILING DATE: 2002-11-14
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 10
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-714-310-10

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        370 TTCACCGCGCGGGG 383
              ||||||||||||||
Db         14 TTCACCGCGCGGGG 1


RESULT 172
US-10-714-310-11/c
; Sequence 11, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
;  PRIOR FILING DATE: 2002-11-14
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 11
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-714-310-11

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        368 CCTTCACCGCGCGG 381
              ||||||||||||||
Db         14 CCTTCACCGCGCGG 1


RESULT 173
US-10-714-310-12/c
; Sequence 12, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
;  PRIOR FILING DATE: 2002-11-14
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 12
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-714-310-12

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        367 CCCTTCACCGCGCG 380
```

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                     ||||||||||||||
Db          14 CCCTTCACCGCGCG 1


RESULT 174
US-10-714-310-16
; Sequence 16, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
;  PRIOR FILING DATE: 2002-11-14
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 16
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-714-310-16

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        303 CGACGACTTCTCCC 316
              ||||||||||||||
Db          1 CGACGACTTCTCCC 14


RESULT 175
US-10-714-310-25/c
; Sequence 25, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
;  PRIOR FILING DATE: 2002-11-14
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 25
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-714-310-25

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          9 CGCTGGGAGAACGG 22
              ||||||||||||||
Db          14 CGCTGGGAGAACGG 1


RESULT 176
US-10-714-310-26/c
; Sequence 26, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
;  PRIOR FILING DATE: 2002-11-14
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 26
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-714-310-26

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        314 CCCGCCGCTACCGC 327
              ||||||||||||||
Db          14 CCCGCCGCTACCGC 1


RESULT 177
US-10-714-310-27/c
; Sequence 27, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
;  PRIOR FILING DATE: 2002-11-14
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 27
;   LENGTH: 14
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-714-310-27

  Query Match             2.3%;  Score 14;  DB 1;  Length 14;
  Best Local Similarity   100.0%;  Pred. No. 1.2e+02;
  Matches   14;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        318 CCGCTACCGCGGCG 331
              ||||||||||||||
Db          14 CCGCTACCGCGGCG 1


RESULT 178
US-10-714-310-28/c
; Sequence 28, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
```

; PRIOR FILING DATE: 2002-11-14
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 28
; LENGTH: 14
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-714-310-28

Query Match 2.3%; Score 14; DB 1; Length 14;
Best Local Similarity 100.0%; Pred. No. 1.2e+02;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 335 TCGCCGAGATGTCC 348
||||||||||||||
Db 14 TCGCCGAGATGTCC 1

RESULT 179
US-10-714-310-33/c
; Sequence 33, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Zhidong
; APPLICANT: Ruffner, Duane E.
; APPLICANT: Prakash, Ramesh
; APPLICANT: Koehn, Richard
; TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
; FILE REFERENCE: 12475/50102
; CURRENT APPLICATION NUMBER: US/10/714,310
; CURRENT FILING DATE: 2003-11-14
; PRIOR APPLICATION NUMBER: US 60/426,269
; PRIOR FILING DATE: 2002-11-14
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 33
; LENGTH: 14
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-714-310-33

Query Match 2.3%; Score 14; DB 1; Length 14;
Best Local Similarity 100.0%; Pred. No. 1.2e+02;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 369 CTTCACCGCGCGGG 382
||||||||||||||
Db 14 CTTCACCGCGCGGG 1

RESULT 180
US-10-714-310-34/c
; Sequence 34, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Zhidong
; APPLICANT: Ruffner, Duane E.
; APPLICANT: Prakash, Ramesh
; APPLICANT: Koehn, Richard
; TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
; FILE REFERENCE: 12475/50102
; CURRENT APPLICATION NUMBER: US/10/714,310
; CURRENT FILING DATE: 2003-11-14
; PRIOR APPLICATION NUMBER: US 60/426,269
; PRIOR FILING DATE: 2002-11-14
; NUMBER OF SEQ ID NOS: 38
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 34
; LENGTH: 14
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-714-310-34

Query Match 2.3%; Score 14; DB 1; Length 14;
Best Local Similarity 100.0%; Pred. No. 1.2e+02;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 372 CACCGCGCGGGGAC 385
||||||||||||||
Db 14 CACCGCGCGGGGAC 1

RESULT 181
US-10-343-859-29/c
; Sequence 29, Application US/10343859
; Publication No. US20040110161A1
; GENERAL INFORMATION:
; APPLICANT: Nanogen Recognomics GMBH
; TITLE OF INVENTION: Method for detecting mutations in
; TITLE OF INVENTION: nucleotide sequences
; FILE REFERENCE: 612,406-033
; CURRENT APPLICATION NUMBER: US/10/343,859
; CURRENT FILING DATE: 2003-11-24
; PRIOR APPLICATION NUMBER: PCT/EP01/08127
; PRIOR FILING DATE: 2001-07-13
; PRIOR APPLICATION NUMBER: 10038237.1
; PRIOR FILING DATE: 2000-08-04
; NUMBER OF SEQ ID NOS: 52
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 29
; LENGTH: 39
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-343-859-29

Query Match 2.2%; Score 13.4; DB 1; Length 39;
Best Local Similarity 73.9%; Pred. No. 1.7e+02;
Matches 17; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 87 GTGGGATGCGGGAGATGTGGGCG 109
| |||||||||| || |||||
Db 35 GCGGGATGCGGCTGAATGGGGCG 13

RESULT 182
US-10-156-433-5
; Sequence 5, Application US/10156433
; Publication No. US20030144489A1
; GENERAL INFORMATION:
; APPLICANT: Burgin, Alex
; APPLICANT: Beigelman, Leonid
; APPLICANT: Bellon, Laurent
; APPLICANT: Zinnen, Shawn
; APPLICANT: Ribozyme Pharmaceuticals, Inc.
; TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
; FILE REFERENCE: MBHB00-943-E (500.007)
; CURRENT APPLICATION NUMBER: US/10/156,433
; CURRENT FILING DATE: 2002-05-28
; PRIOR APPLICATION NUMBER: US 10/112,814
; PRIOR FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: US 09/216,584
; PRIOR FILING DATE: 1998-12-18
; PRIOR APPLICATION NUMBER: US 09/094,381
; PRIOR FILING DATE: 1998-06-09
; PRIOR APPLICATION NUMBER: US 60/068,212
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: US 60/049,002
; PRIOR FILING DATE: 1997-06-09
; NUMBER OF SEQ ID NOS: 72
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 13
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-156-433-5

Query Match 2.1%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        365 CGCCCTTCACCGC 377
              |||||||||||||
Db          1 CGCCCTTCACCGC 13
```

RESULT 183
US-10-156-433-6
; Sequence 6, Application US/10156433
; Publication No. US20030144489A1
; GENERAL INFORMATION:
; APPLICANT: Burgin, Alex
; APPLICANT: Beigelman, Leonid
; APPLICANT: Bellon, Laurent
; APPLICANT: Zinnen, Shawn
; APPLICANT: Ribozyme Pharmaceuticals, Inc.
; TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
; FILE REFERENCE: MBHB00-943-E (500.007)
; CURRENT APPLICATION NUMBER: US/10/156,433
; CURRENT FILING DATE: 2002-05-28
; PRIOR APPLICATION NUMBER: US 10/112,814
; PRIOR FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: US 09/216,584
; PRIOR FILING DATE: 1998-12-18
; PRIOR APPLICATION NUMBER: US 09/094,381
; PRIOR FILING DATE: 1998-06-09
; PRIOR APPLICATION NUMBER: US 60/068,212
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: US 60/049,002
; PRIOR FILING DATE: 1997-06-09
; NUMBER OF SEQ ID NOS: 72
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 13
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-156-433-6

Query Match 2.1%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        407 AGCTCTTCAGGGA 419
              |||||||||||||
Db          1 AGCTCTTCAGGGA 13
```

RESULT 184
US-10-156-433-8
; Sequence 8, Application US/10156433
; Publication No. US20030144489A1
; GENERAL INFORMATION:
; APPLICANT: Burgin, Alex
; APPLICANT: Beigelman, Leonid
; APPLICANT: Bellon, Laurent
; APPLICANT: Zinnen, Shawn
; APPLICANT: Ribozyme Pharmaceuticals, Inc.
; TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
; FILE REFERENCE: MBHB00-943-E (500.007)
; CURRENT APPLICATION NUMBER: US/10/156,433
; CURRENT FILING DATE: 2002-05-28
; PRIOR APPLICATION NUMBER: US 10/112,814
; PRIOR FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: US 09/216,584
; PRIOR FILING DATE: 1998-12-18
; PRIOR APPLICATION NUMBER: US 09/094,381
; PRIOR FILING DATE: 1998-06-09
; PRIOR APPLICATION NUMBER: US 60/068,212
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: US 60/049,002
; PRIOR FILING DATE: 1997-06-09
; NUMBER OF SEQ ID NOS: 72
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 8
; LENGTH: 13
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-156-433-8

Query Match 2.1%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        533 CTGAGTACCTGAA 545
              |||||||||||||
Db          1 CTGAGTACCTGAA 13
```

RESULT 185
US-10-156-433-9
; Sequence 9, Application US/10156433
; Publication No. US20030144489A1
; GENERAL INFORMATION:
; APPLICANT: Burgin, Alex
; APPLICANT: Beigelman, Leonid
; APPLICANT: Bellon, Laurent
; APPLICANT: Zinnen, Shawn
; APPLICANT: Ribozyme Pharmaceuticals, Inc.
; TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
; FILE REFERENCE: MBHB00-943-E (500.007)
; CURRENT APPLICATION NUMBER: US/10/156,433
; CURRENT FILING DATE: 2002-05-28
; PRIOR APPLICATION NUMBER: US 10/112,814
; PRIOR FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: US 09/216,584
; PRIOR FILING DATE: 1998-12-18
; PRIOR APPLICATION NUMBER: US 09/094,381
; PRIOR FILING DATE: 1998-06-09
; PRIOR APPLICATION NUMBER: US 60/068,212
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: US 60/049,002
; PRIOR FILING DATE: 1997-06-09
; NUMBER OF SEQ ID NOS: 72
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 9
; LENGTH: 13
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-156-433-9

Query Match 2.1%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy        452 TTGAGTTCGGTGG 464
              |||||||||||||
Db          1 TTGAGTTCGGTGG 13
```

RESULT 186
US-10-156-433-10
; Sequence 10, Application US/10156433
; Publication No. US20030144489A1
; GENERAL INFORMATION:
; APPLICANT: Burgin, Alex
; APPLICANT: Beigelman, Leonid
; APPLICANT: Bellon, Laurent
; APPLICANT: Zinnen, Shawn
; APPLICANT: Ribozyme Pharmaceuticals, Inc.
; TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
; FILE REFERENCE: MBHB00-943-E (500.007)
; CURRENT APPLICATION NUMBER: US/10/156,433
; CURRENT FILING DATE: 2002-05-28

; PRIOR APPLICATION NUMBER: US 10/112,814
; PRIOR FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: US 09/216,584
; PRIOR FILING DATE: 1998-12-18
; PRIOR APPLICATION NUMBER: US 09/094,381
; PRIOR FILING DATE: 1998-06-09
; PRIOR APPLICATION NUMBER: US 60/068,212
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: US 60/049,002
; PRIOR FILING DATE: 1997-06-09
; NUMBER OF SEQ ID NOS: 72
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 10
; LENGTH: 13
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-156-433-10

Query Match 2.1%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 47 TGAAGTACATCCA 59
||||||||||||
Db 1 TGAAGTACATCCA 13

RESULT 187
US-10-156-433-11
; Sequence 11, Application US/10156433
; Publication No. US20030144489A1
; GENERAL INFORMATION:
; APPLICANT: Burgin, Alex
; APPLICANT: Beigelman, Leonid
; APPLICANT: Bellon, Laurent
; APPLICANT: Zinnen, Shawn
; APPLICANT: Ribozyme Pharmaceuticals, Inc.
; TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
; FILE REFERENCE: MBHB00-943-E (500.007)
; CURRENT APPLICATION NUMBER: US/10/156,433
; CURRENT FILING DATE: 2002-05-28
; PRIOR APPLICATION NUMBER: US 10/112,814
; PRIOR FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: US 09/216,584
; PRIOR FILING DATE: 1998-12-18
; PRIOR APPLICATION NUMBER: US 09/094,381
; PRIOR FILING DATE: 1998-06-09
; PRIOR APPLICATION NUMBER: US 60/068,212
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: US 60/049,002
; PRIOR FILING DATE: 1997-06-09
; NUMBER OF SEQ ID NOS: 72
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 11
; LENGTH: 13
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-156-433-11

Query Match 2.1%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 273 TGTGGTCCACCTG 285
||||||||||||
Db 1 TGTGGTCCACCTG 13

RESULT 188
US-10-156-433-12
; Sequence 12, Application US/10156433
; Publication No. US20030144489A1
; GENERAL INFORMATION:
; APPLICANT: Burgin, Alex
; APPLICANT: Beigelman, Leonid
; APPLICANT: Bellon, Laurent
; APPLICANT: Zinnen, Shawn
; APPLICANT: Ribozyme Pharmaceuticals, Inc.
; TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
; FILE REFERENCE: MBHB00-943-E (500.007)
; CURRENT APPLICATION NUMBER: US/10/156,433
; CURRENT FILING DATE: 2002-05-28
; PRIOR APPLICATION NUMBER: US 10/112,814
; PRIOR FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: US 09/216,584
; PRIOR FILING DATE: 1998-12-18
; PRIOR APPLICATION NUMBER: US 09/094,381
; PRIOR FILING DATE: 1998-06-09
; PRIOR APPLICATION NUMBER: US 60/068,212
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: US 60/049,002
; PRIOR FILING DATE: 1997-06-09
; NUMBER OF SEQ ID NOS: 72
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 12
; LENGTH: 13
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-156-433-12

Query Match 2.1%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 169 CCCCATCCAGCCG 181
||||||||||||
Db 1 CCCCATCCAGCCG 13

RESULT 189
US-10-156-433-13
; Sequence 13, Application US/10156433
; Publication No. US20030144489A1
; GENERAL INFORMATION:
; APPLICANT: Burgin, Alex
; APPLICANT: Beigelman, Leonid
; APPLICANT: Bellon, Laurent
; APPLICANT: Zinnen, Shawn
; APPLICANT: Ribozyme Pharmaceuticals, Inc.
; TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
; FILE REFERENCE: MBHB00-943-E (500.007)
; CURRENT APPLICATION NUMBER: US/10/156,433
; CURRENT FILING DATE: 2002-05-28
; PRIOR APPLICATION NUMBER: US 10/112,814
; PRIOR FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: US 09/216,584
; PRIOR FILING DATE: 1998-12-18
; PRIOR APPLICATION NUMBER: US 09/094,381
; PRIOR FILING DATE: 1998-06-09
; PRIOR APPLICATION NUMBER: US 60/068,212
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: US 60/049,002
; PRIOR FILING DATE: 1997-06-09
; NUMBER OF SEQ ID NOS: 72
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 13
; LENGTH: 13
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-156-433-13

Query Match 2.1%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 561 CTGGATCCAGGAT 573

```
                    ||||||||||||||
Db          1 CTGGATCCAGGAT 13


RESULT 190
US-10-112-814-5
; Sequence 5, Application US/10112814
; Publication No. US20030170644A1
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-943-D; 400.005
;  CURRENT APPLICATION NUMBER: US/10/112,814
;  CURRENT FILING DATE:  2002-03-29
;  PRIOR APPLICATION NUMBER: 09/216,584
;  PRIOR FILING DATE: 1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 5
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-10-112-814-5

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        365 CGCCCTTCACCGC 377
                ||||||||||||||
Db          1 CGCCCTTCACCGC 13


RESULT 191
US-10-112-814-6
; Sequence 6, Application US/10112814
; Publication No. US20030170644A1
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-943-D; 400.005
;  CURRENT APPLICATION NUMBER: US/10/112,814
;  CURRENT FILING DATE:  2002-03-29
;  PRIOR APPLICATION NUMBER: 09/216,584
;  PRIOR FILING DATE: 1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 6
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-10-112-814-6

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        407 AGCTCTTCAGGGA 419
                ||||||||||||||
Db          1 AGCTCTTCAGGGA 13


RESULT 192
US-10-112-814-8
; Sequence 8, Application US/10112814
; Publication No. US20030170644A1
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-943-D; 400.005
;  CURRENT APPLICATION NUMBER: US/10/112,814
;  CURRENT FILING DATE:  2002-03-29
;  PRIOR APPLICATION NUMBER: 09/216,584
;  PRIOR FILING DATE: 1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 8
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-10-112-814-8

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        533 CTGAGTACCTGAA 545
                ||||||||||||||
Db          1 CTGAGTACCTGAA 13


RESULT 193
US-10-112-814-9
; Sequence 9, Application US/10112814
; Publication No. US20030170644A1
; GENERAL INFORMATION:
;  APPLICANT: Alex, Burgin
;  APPLICANT:  Leonid, Beigelman
;  APPLICANT:  Laurent, Bellon
;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-943-D; 400.005
;  CURRENT APPLICATION NUMBER: US/10/112,814
;  CURRENT FILING DATE:  2002-03-29
;  PRIOR APPLICATION NUMBER: 09/216,584
;  PRIOR FILING DATE: 1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
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; SEQ ID NO 9
; LENGTH: 13
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-10-112-814-9

Query Match 2.1%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 452 TTGAGTTCGGTGG 464
||||||||||||||
Db 1 TTGAGTTCGGTGG 13

RESULT 194
US-10-112-814-10
; Sequence 10, Application US/10112814
; Publication No. US20030170644A1
; GENERAL INFORMATION:
; APPLICANT: Alex, Burgin
; APPLICANT: Leonid, Beigelman
; APPLICANT: Laurent, Bellon
; TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
; FILE REFERENCE: MBHB00-943-D; 400.005
; CURRENT APPLICATION NUMBER: US/10/112,814
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: 09/216,584
; PRIOR FILING DATE: 1998-12-18
; PRIOR APPLICATION NUMBER: 09/094,381
; PRIOR FILING DATE: 1998-06-09
; PRIOR APPLICATION NUMBER: 60/068,212
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: 60/049,002
; PRIOR FILING DATE: 1997-06-09
; NUMBER OF SEQ ID NOS: 52
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 10
; LENGTH: 13
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-10-112-814-10

Query Match 2.1%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 47 TGAAGTACATCCA 59
||||||||||||||
Db 1 TGAAGTACATCCA 13

RESULT 195
US-10-112-814-11
; Sequence 11, Application US/10112814
; Publication No. US20030170644A1
; GENERAL INFORMATION:
; APPLICANT: Alex, Burgin
; APPLICANT: Leonid, Beigelman
; APPLICANT: Laurent, Bellon
; TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
; FILE REFERENCE: MBHB00-943-D; 400.005
; CURRENT APPLICATION NUMBER: US/10/112,814
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: 09/216,584
; PRIOR FILING DATE: 1998-12-18
; PRIOR APPLICATION NUMBER: 09/094,381
; PRIOR FILING DATE: 1998-06-09
; PRIOR APPLICATION NUMBER: 60/068,212
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: 60/049,002
; PRIOR FILING DATE: 1997-06-09
; NUMBER OF SEQ ID NOS: 52
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 11
; LENGTH: 13
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-10-112-814-11

Query Match 2.1%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 273 TGTGGTCCACCTG 285
||||||||||||||
Db 1 TGTGGTCCACCTG 13

RESULT 196
US-10-112-814-12
; Sequence 12, Application US/10112814
; Publication No. US20030170644A1
; GENERAL INFORMATION:
; APPLICANT: Alex, Burgin
; APPLICANT: Leonid, Beigelman
; APPLICANT: Laurent, Bellon
; TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
; FILE REFERENCE: MBHB00-943-D; 400.005
; CURRENT APPLICATION NUMBER: US/10/112,814
; CURRENT FILING DATE: 2002-03-29
; PRIOR APPLICATION NUMBER: 09/216,584
; PRIOR FILING DATE: 1998-12-18
; PRIOR APPLICATION NUMBER: 09/094,381
; PRIOR FILING DATE: 1998-06-09
; PRIOR APPLICATION NUMBER: 60/068,212
; PRIOR FILING DATE: 1997-12-19
; PRIOR APPLICATION NUMBER: 60/049,002
; PRIOR FILING DATE: 1997-06-09
; NUMBER OF SEQ ID NOS: 52
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 12
; LENGTH: 13
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-10-112-814-12

Query Match 2.1%; Score 13; DB 1; Length 13;
Best Local Similarity 100.0%; Pred. No. 1.4e+02;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 169 CCCCATCCAGCCG 181
||||||||||||||
Db 1 CCCCATCCAGCCG 13

RESULT 197
US-10-112-814-13
; Sequence 13, Application US/10112814
; Publication No. US20030170644A1
; GENERAL INFORMATION:
; APPLICANT: Alex, Burgin
; APPLICANT: Leonid, Beigelman
; APPLICANT: Laurent, Bellon

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;  TITLE OF INVENTION: Method for Screening Nucleic Acid Catalysts
;  FILE REFERENCE: MBHB00-943-D; 400.005
;  CURRENT APPLICATION NUMBER: US/10/112,814
;  CURRENT FILING DATE:  2002-03-29
;  PRIOR APPLICATION NUMBER: 09/216,584
;  PRIOR FILING DATE: 1998-12-18
;  PRIOR APPLICATION NUMBER: 09/094,381
;  PRIOR FILING DATE: 1998-06-09
;  PRIOR APPLICATION NUMBER: 60/068,212
;  PRIOR FILING DATE: 1997-12-19
;  PRIOR APPLICATION NUMBER: 60/049,002
;  PRIOR FILING DATE: 1997-06-09
;  NUMBER OF SEQ ID NOS: 52
;  SOFTWARE: PatentIn version 3.0
; SEQ ID NO 13
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Artificial Sequence
;   FEATURE:
;   NAME/KEY: misc_feature
;   OTHER INFORMATION: Accessible site within Bcl-2 transcript
US-10-112-814-13

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        561 CTGGATCCAGGAT 573
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Db          1 CTGGATCCAGGAT 13


RESULT 198
US-10-714-310-13/c
; Sequence 13, Application US/10714310
; Publication No. US20040152654A1
; GENERAL INFORMATION:
;  APPLICANT: Chen, Zhidong
;  APPLICANT:  Ruffner, Duane E.
;  APPLICANT:  Prakash, Ramesh
;  APPLICANT:  Koehn, Richard
;  TITLE OF INVENTION: Inhibitory Oligonucleotides Targeted to Bcl-2
;  FILE REFERENCE: 12475/50102
;  CURRENT APPLICATION NUMBER: US/10/714,310
;  CURRENT FILING DATE:  2003-11-14
;  PRIOR APPLICATION NUMBER: US 60/426,269
;  PRIOR FILING DATE: 2002-11-14
;  NUMBER OF SEQ ID NOS: 38
;  SOFTWARE: PatentIn version 3.2
; SEQ ID NO 13
;   LENGTH: 13
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-714-310-13

  Query Match             2.1%;  Score 13;  DB 1;  Length 13;
  Best Local Similarity   100.0%;  Pred. No. 1.4e+02;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        367 CCCTTCACCGCGC 379
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Db         13 CCCTTCACCGCGC 1


RESULT 199
US-10-076-047A-177
; Sequence 177, Application US/10076047A
; Publication No. US20030152935A1
; GENERAL INFORMATION:
;  APPLICANT: Herath, Herath Mudiyanselage Athula Chandrasiri
;  TITLE OF INVENTION: Proteins, Genes and Their Use for
;  TITLE OF INVENTION:  Diagnosis and Treatment of Breast Cancer
;  FILE REFERENCE: 2543-1-026
;  CURRENT APPLICATION NUMBER: US/10/076,047A
;  CURRENT FILING DATE:  2002-02-13
;  PRIOR APPLICATION NUMBER: GB 9919258.5
;  PRIOR FILING DATE: 1999-08-13
;  PRIOR APPLICATION NUMBER: GB 0007754.5
;  PRIOR FILING DATE: 2000-03-30
;  PRIOR APPLICATION NUMBER: PCT/GB00/03143
;  PRIOR FILING DATE: 2000-08-14
;  NUMBER OF SEQ ID NOS: 351
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 177
;   LENGTH: 12
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-076-047A-177

  Query Match             2.0%;  Score 12;  DB 1;  Length 12;
  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        397 GTGGTGGAGGAG 408
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Db          1 GTGGTGGAGGAG 12


RESULT 200
US-10-076-047A-255/c
; Sequence 255, Application US/10076047A
; Publication No. US20030152935A1
; GENERAL INFORMATION:
;  APPLICANT: Herath, Herath Mudiyanselage Athula Chandrasiri
;  TITLE OF INVENTION: Proteins, Genes and Their Use for
;  TITLE OF INVENTION:  Diagnosis and Treatment of Breast Cancer
;  FILE REFERENCE: 2543-1-026
;  CURRENT APPLICATION NUMBER: US/10/076,047A
;  CURRENT FILING DATE:  2002-02-13
;  PRIOR APPLICATION NUMBER: GB 9919258.5
;  PRIOR FILING DATE: 1999-08-13
;  PRIOR APPLICATION NUMBER: GB 0007754.5
;  PRIOR FILING DATE: 2000-03-30
;  PRIOR APPLICATION NUMBER: PCT/GB00/03143
;  PRIOR FILING DATE: 2000-08-14
;  NUMBER OF SEQ ID NOS: 351
;  SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 255
;   LENGTH: 12
;   TYPE: DNA
;   ORGANISM: Homo sapiens
US-10-076-047A-255

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  Best Local Similarity   100.0%;  Pred. No. 1.6e+02;
  Matches   12;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy        558 CACCTGGATCCA 569
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Db         12 CACCTGGATCCA 1


Search completed: September 22, 2004, 08:58:48
Job time : 2 secs
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